



## Summary

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Includes: **News, reviews and developments included in this issue.**

#### Labour Statistics News

Includes: **What's happening in the Labour Statistics program?**

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Includes: **A list of articles on labour statistics.**

New articles in this issue:

- How does the ABS measure unemployment
- Retrenchments
- The unemployed and recipients of government unemployment benefits - differences explained
- Understanding earnings in Australia using ABS data.

#### Find Out More

Includes: **Further information and about the ABS Labour Statistics program.**

### About this Release

This product contains annual supplementary measures of labour underutilisation and employment type, as well as analyses of contemporary labour market issues and information about the latest developments in the Australian Bureau of Statistics (ABS) labour statistics program.

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## What's New

### WHAT'S NEW?

Welcome to the latest issue of Australian Labour Market Statistics (cat. no. 6105.0), a product which keeps you informed about key labour market measures and the latest developments in the Australian Bureau of Statistics (ABS) labour statistics program.

### WHAT'S IN THIS ISSUE?

This issue highlights news from the ABS labour statistics program, including:

- Changes to Labour Force Statistics;
- Revision to active job search steps;
- Changes to ABS labour supplementary surveys;
- Rebenchmarking Labour Force Statistics to the 2011 Census of Population and Housing; and
- Review of Industrial Disputes Statistics.

See the Labour Statistics News page for more details on these developments.

Australian Labour Market Statistics (cat. no. 6105.0) includes three datacubes which provide supplementary information on labour force underutilisation (volume and extended measures), and employment type:

- Volume measures have been updated in this issue with 2013 data. The data for 2003 to 2012 have been revised to incorporate the rebasing of labour force estimates to the 2011 Census of Population and Housing. There has been a minor improvement to the methodology used to derive these measures, however this resulted in no noticeable impact on the measures.

- Extended measures have been updated in this issue with 2013 data. The data for 1994 to 2012 have been revised to incorporate the rebasing of labour force estimates to the 2011 Census of Population and Housing. There has also been a minor change to the methodology for deriving the extended labour force underutilisation rate from 1994 to 2000. The impact of this change was minor.
- Employment type has been updated in this issue with 2013 data.

This issue of Australian Labour Market Statistics includes four feature articles:

- How does the ABS measure unemployment, describes how the ABS defines and statistically measures the unemployed population.
- Retrenchments, uses data from the Labour Mobility Survey to look at changes in retrenchments over recent years.
- The unemployed and recipients of government unemployment benefits - differences explained, uses data from the Survey of Income and Housing to explore the relationship between the unemployed population and job search income support recipients.
- Understanding earnings in Australia using ABS data, explains the conceptual and methodological differences between key ABS sources of earnings statistics and provides some guidance on the appropriate uses of these data.

Updates on labour market statistical developments, analytical articles and news are available through the Labour Topics @ a Glance page.

### **Future changes to Australian Labour Market Statistics (cat. no. 6105.0)**

With the introduction of the changes to Labour Force Statistics (described in the Labour Statistics News section of this product) the three datacubes attached to this product will no longer be released in Australian Labour Market Statistics (cat. no. 6105.0). Volume Measures of Labour Underutilisation will be available quarterly in Labour Force Australia, Detailed, Quarterly (cat. no. 6291.0.55.003), from the May 2015 issue. The employment type and status in employment classifications are being combined, and data on leave entitlements will be collected quarterly in the Labour Force Survey. As a result the information contained in the Employment Type datacube will be available in Labour Force Australia, Detailed, Quarterly (cat. no. 6291.0.55.003), from the May 2015 issue, in tables and datacubes that contain status in employment. The information required to compile the Extended Labour Force Underutilisation Rate will be collected in February each year, and therefore the rate will be released with the results of the February 2015 supplementary survey.

Australian Labour Market Statistics will remain as an infrequent product to facilitate the release of feature articles related to ABS labour statistics.

### **FEEDBACK AND COMMENTS**

If you have any questions about the labour statistics program, you can contact us on (02) 6252 7206 or email <labour.statistics@abs.gov.au>.

The Find out more page contains further information and contact details.

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## **Labour Statistics News**

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### **LABOUR STATISTICS NEWS**

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 Review of Industrial Disputes Statistics

### **CHANGES TO LABOUR FORCE STATISTICS**

Changes to Labour Force Statistics will be implemented from July 2014. These changes have arisen from the ABS review in 2010-11 of content included in the labour household survey program, as described in the Information Paper: Outcomes of the Labour Household Surveys Content Review, 2012 (cat. no. 6107.0).

A range of improvements and other changes to Labour Force Statistics are being implemented, arising from four drivers:

- improved (new or more frequent) content, including volume measures of labour underutilisation, retrenchment, education, leave entitlements, sector, number of jobs and underemployment;
- changes to classifications and standards, including revision to active job search steps (see below), duration of unemployment/job search, status in employment, age categories, and hours worked categories;
- removal of obsolete data items, e.g. duration of unemployment since last full-time job; and
- rationalisation of data outputs and other changes.

These changes commence from July 2014 in Labour Force, Australia (cat. no. 6202.0) and related products, although new items will be released from January 2015. Information on the full range of changes to outputs, including timing of implementation, is provided in the Information Paper: Forthcoming Changes to Labour Force Statistics, 2014 (cat. no. 6292.0), released on 26 June 2014.

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### **REVISION TO ACTIVE JOB SEARCH STEPS**

From July 2014 the ABS will change some of the job search steps in the Labour Force Survey (LFS) to better reflect the nature of job search practices in Australia and to better align with international standards. This note outlines the current practice, what the changes are and the reasons for the changes. The impact on the estimates of the unemployed population are not expected to be statistically significant.

In accordance with international standards the ABS includes an 'active' job search criteria to define the unemployed population in the LFS. 'Active' job search steps are those which put a person in contact with prospective employers for work, either directly or through

intermediaries (such as employment services, agencies or recruiting firms), or represent steps towards 'self-employment'. See the Glossary of Labour Force, Australia (cat. no. 6202.0) for the list of current active job search steps. People who only looked in newspapers or read job advertisements on the internet are not considered actively looking for work, as it is impossible to obtain work without some additional active job search step (for example, contacting the employer).

To maintain consistency in the underlying concept of active job search over time, it is necessary to periodically review the steps which are considered active to reflect current and emerging practices in the labour market. For example, in July 2011 looking on the internet was added to looking in newspapers as a passive job search step and reference to Centrelink touch screens was removed.

### What changes are occurring?

Changes to the job search steps will be made to the LFS questionnaire from July 2014. These changes aim to more accurately reflect the role of Centrelink in relation to job seekers, to provide greater consistency of treatment of certain job search steps, and to include logical job search steps that are currently not included.

Two new active job search steps will be included in the survey:

- 'had an interview with an employer for work' and
- 'taken steps to purchase or start your own business'.

Having an interview with an employer is a logical step in the process of getting a job, and given that it may take some time for people to be offered a job after applying (during which time they may attend an interview), including this as an active job search step means that people who are in the process of being considered for a job will not necessarily change from being classified as unemployed to not in the labour force if there are time lags between applying for, being interviewed for and being offered a job.

The previous suite of job search steps did not consider steps taken to start or purchase a business as an active job search step. Activities such as applying for an Australian Business Number or licences, or seeking finance to establish or purchase a business, or obtaining premises or equipment, are considered job search activities for people who are looking to be 'self-employed', i.e. working in their own business. The recognition of these as active job search steps was agreed to at the 19th International Conference of Labour Statisticians, in October 2013, where the standards for work, employment and labour underutilisation were revised.

In addition, two steps which are currently 'active' steps will no longer be considered sufficient for the respondent to be classified as actively looking for work. These are 'checked notice boards' and 'been registered with Centrelink as a jobseeker'.

Currently, the step 'looking in newspapers or on the internet' is not an active job search step, as without taking further steps (such as responding to an advertisement or applying to an employer for a job) a prospective employer would not be made aware that the person was looking for work. Checking notice boards is not conceptually different from checking in newspapers or on the internet, so should be treated in the same way (as not an active job search step), and will be rolled into the current response 'looking in newspapers or on the internet'.

The role of Centrelink in relation to job seekers has changed over time. The core function of Centrelink in relation to job seekers is in the administration of income support, rather than directly supporting job search activities. While registering with Centrelink as a job seeker is a necessary step in order to receive government income support, it is not a step relating to actual job search. Job seekers would need to take active job search steps, in order to be considered actively looking for work.

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## CHANGES TO ABS LABOUR SUPPLEMENTARY SURVEYS

As outlined in the Information Paper: Outcomes of the Labour Household Surveys Content Review, 2012 (cat. no. 6107.0), in addition to the changes to the LFS (described above) the ABS is rationalising the labour supplementary survey program into two supplementary surveys in August (Characteristics of Employment) and February (Participation, Job Search and Mobility).

### Characteristics of Employment (COE) supplementary survey

The new COE supplementary survey will integrate key elements of the Employee Earnings, Benefits and Trade Union Membership (EEBTUM) survey and the Forms of Employment (FOE) survey (including the Working Time Arrangements and Labour Hire modules).

The supplementary survey will describe the key features of people's employment and inform users on the following labour market issues:

- earnings - in main job and second job;
- employment arrangements;
- independent contracting;
- fixed-term employment;
- trade union membership;
- labour hire;
- working patterns;
- job stability;
- job flexibility; and
- overwork.

Including this data in a single survey will enable analysis of the key elements of people's employment and related outcomes. While the EEBTUM and FOE surveys have each collected information describing people's employment, each only provided a partial picture of people's employment and related outcomes. As the COE survey will be conducted as a supplement to the LFS in August each year, the items collected each quarter in the LFS will be included on the dataset and incorporated in survey output where appropriate.

With additional content added to the monthly and quarterly LFS it has been necessary to reduce the content in COE compared to the previous labour supplementary survey program. Data items with a relatively lower priority compared to others will cease being collected in the labour supplementary survey program.

To minimise respondent burden and enable the planned content to fit within the available resources for the survey, the COE supplementary survey will comprise a core annual component and two components included every two years on a rotating basis. This approach also reflects that some data items do not change significantly from year to year.

The core component will contain information on earnings (weekly and hourly earnings in main job and second job), fixed term employment

and independent contracting. The first of the two rotating components will contain information on trade union membership, labour hire, job stability and more detail on independent contracting. The second of the two rotating components will contain information on overwork, job flexibility and working patterns.

Further details, including data items lists, are available in Appendix 3 of the August 2013 issue of Employee Earnings, Benefits, and Trade Union Membership (cat. no. 6310.0).

#### **Participation, Job Search and Mobility supplementary survey**

The other labour supplementary survey to be conducted annually each February from 2015 will integrate the key elements of the Labour Mobility, Job Search Experience (JSE), Underemployed Workers (UEW) and Persons Not in the Labour Force (PNILF) surveys into a single survey - Participation, Job Search and Mobility. The supplementary survey will inform users on the following broad labour market issues:

- job mobility;
- job search;
- participation and increasing participation;
- underemployment; and
- marginal attachment.

Including this range of topics into a single survey will enable analysis of people's experiences relating to job search, job change and increasing participation. While the JSE, UEW, PNILF and Labour Mobility surveys have all collected information describing people's transitions within and out of the labour force, each only provided a partial picture of labour force participation and related outcomes.

While the content of the Participation, Job Search and Labour Mobility supplementary survey will largely be based on existing content, some changes will be made to better inform on important issues. In particular, the survey will:

- expand information collected on job search (and job churn), by adding to information already collected on job search by the unemployed, by asking whether employed people looked for a job (and if so, the steps taken) and asking those not in the labour force who looked for work the steps they took;
- provide more comprehensive information on geographic mobility, by broadening the scope of the data items on whether people would be prepared to move interstate or intrastate for a job from the underemployed to the unemployed, employed and people not in the labour force who want to work.

The ABS has re-organised the content of the survey to contain a core annual component, comprising around two-thirds of the overall content, with the remaining content included every two years on a rotating basis (a similar approach to the COE survey). This has been necessary to accommodate the planned content into the available resources.

The core component will contain content on job search, participation, underemployment and key labour mobility measures. The first of the two rotating components will contain more detailed content on labour mobility, and previous job details. The second of the two rotating components will contain more detailed content on job search, and participation.

The content of this survey is still being finalised. Details of these changes, when finalised, will be advised in Persons not in the labour force, Underemployed workers and Job search experience, February 2014 (cat. no. 6226.55.001) to be released in December 2014.

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## **REBENCHMARKING LABOUR FORCE STATISTICS TO THE 2011 CENSUS OF POPULATION AND HOUSING**

Data from the Labour Force Survey (LFS) on persons employed, unemployed and not in the labour force are calculated so as to add to independent population benchmarks for age groups, sex and regions. For the labour force estimates, these population benchmarks are based on the Estimated Resident Population (ERP) which reflects counts from the Census of Population and Housing adjusted for under-enumeration, updated for births, deaths, interstate migration and net overseas migration. As labour force estimates cover the civilian population aged 15 years and over, the civilian population aged under 15 years and permanent defence personnel are deducted from ERP to create the labour force population benchmarks.

From January 2014 LFS estimates have been compiled using population benchmarks based on results from the 2011 Census. Additionally, labour force estimates for the period July 1991 to December 2013 were rebenchmarked to the revised population benchmarks. These revisions were introduced concurrently with the introduction of the Australian Statistical Geography Standard.

For more details about the revisions made and the impact on the LFS estimates see the January 2014 issue of Labour Force, Australia (cat. no. 6202.0).

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## **REVIEW OF INDUSTRIAL DISPUTES STATISTICS**

The ABS has conducted a review of the Industrial Disputes statistics. Since the last comprehensive review in 1999 there have been a number of changes to industrial relations legislation and, more generally, the structure of the labour market and nature of working arrangements have also changed considerably. An important element of the review was to understand the contemporary and potential future data requirements of users. The first phase of the review has been completed and the recommendations were discussed at the ABS chaired Labour Statistics Advisory Group on 22 November 2013. The ABS is now investigating the operational impacts of implementing the recommendations. Once the outcomes from the operational phase are finalised, information about any changes to the Industrial Disputes statistics will be communicated to users, primarily through notes in Industrial Disputes, Australia (cat. no. 6231.0.55.001).

If you would like further information about the review, please contact Manpreet Singh on (08) 9360 5916.

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This section provides an archive of articles and analysis published in Australian Labour Market Statistics, promoting the effective use of labour market statistics. Articles are sorted by topic.

Labour related topics are also included in Australian Social Trends articles (cat. no. 4102.0).

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## Retrenchments

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### RETRENCHMENTS

#### INTRODUCTION

Trends in retrenchment are of interest from both an economic and social perspective. From an economic perspective the level of retrenchments and industries associated with them can be used with other indicators (for example employment growth and aggregate hours worked) to understand the strength of the economy and the cyclical and structural changes occurring within it. From a social perspective, retrenchment represents a significant time of change in an individual's working life, and can be associated with a period of uncertainty and stress, as well as changes in financial security and may result in further job search or entrepreneurial activities.

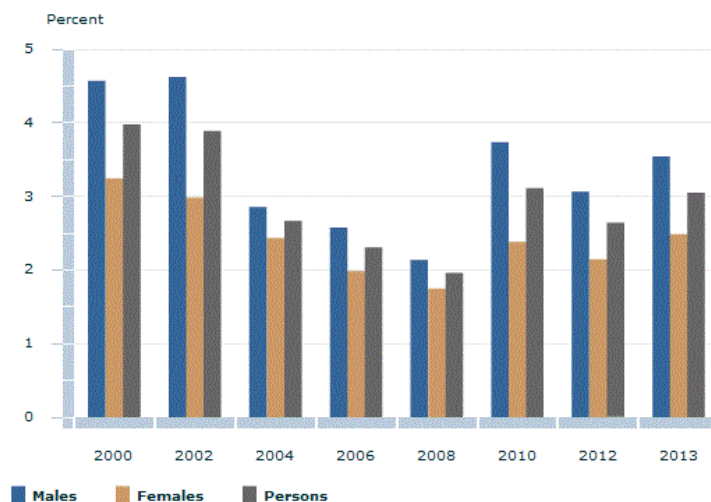
This article examines retrenchments in Australia using data from the ABS' Labour Mobility Survey. It examines trends in retrenchments over the period February 2000 to February 2013, and highlights the characteristics and labour force outcomes of retrenched workers. The Labour Mobility Survey was conducted biennially between 2000 and 2012, and conducted again in 2013. Data relates to persons who reported being retrenched in the 12 months prior to the survey reference week<sup>1</sup>.

#### RATE OF RETRENCHMENTS

Approximately two million people ceased a job during the 12 months to February 2013. While the majority of these (60%) left their last job for voluntary reasons, 19% (or 381,000) left their last job because they were retrenched or had their job made redundant<sup>2</sup>. The remaining 21% left their last job because of their own ill-health or injury, or because the job was seasonal or temporary. When expressed as a proportion of all people who had been employed at some time over the previous 12 months, the rate of retrenchments in the 12 months to February 2013 was 3.1%.

The rate of retrenchments between 2000 and 2013 is shown in graph 1. Over this time, the rate fell from 4.0% in 2000 to a low of 2.0% in 2008, before increasing sharply in 2010 to 3.1%. It remained broadly at that level in 2012 and 2013 (2.6% and 3.1% respectively).

1. Retrenchment rate(a), February 2000 to February 2013(b), by sex



**Footnote(s):** (a) The number of persons retrenched during the previous 12 months as a percentage of all people who had been employed at some time over the same period. (b) Data for 2000 to 2004 relate to persons aged 15-69 years. Data from 2006 onwards relate to persons aged 15 years and over.

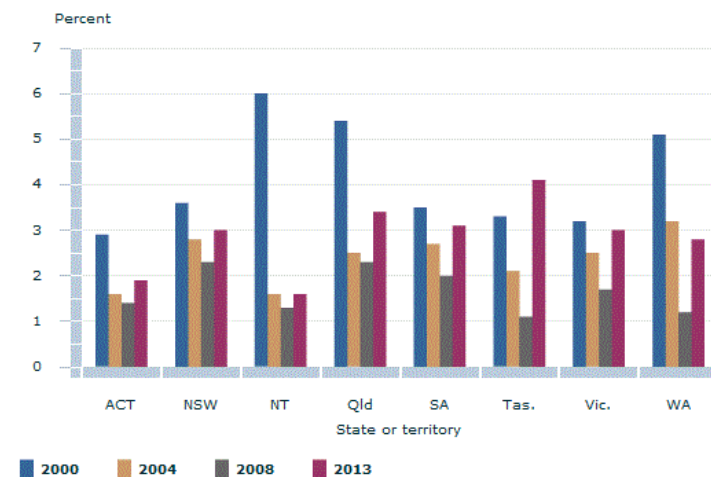
**Source(s):** Data available on request, Labour Mobility Survey, 2000-2013

When examining trends in retrenchments by sex (graph 1), it is evident that the retrenchment rate for men has been consistently higher than that for women (for example 3.5% and 2.5%, respectively in the 12 months to February 2013). A major factor influencing the different retrenchment rates for males and females was that men were more concentrated in those industries which had a higher rate of retrenchments (e.g. construction, mining, manufacturing), and the female dominated industries (education and training, health care and social assistance) have maintained relatively low rates of retrenchment.

Graph 2 shows the rate of retrenchments for each state and territory in the years ending February 2000, 2004, 2008 and 2013<sup>3</sup>. Each state and territory followed the trend of Australia's retrenchment rate over the same time period, in falling between 2000 and 2008 before increasing in the most recent period. In the 12 months to February 2000, the Northern Territory, Queensland and Western Australia had the highest retrenchment rates of the states and territories (6.0%, 5.4% and 5.1% respectively). In the 12 months to February 2013, Tasmania and Queensland had the highest retrenchment rates of the states and territories (4.1% and 3.4% respectively).



2. Retrenchment rate(a), Feb 2000, Feb 2004, Feb 2008 & Feb 2013(b), by state or territory(c)



**Footnote(s):** (a) The number of persons retrenched during the previous 12 months as a percentage of all people who had been employed at some time over the same period. (b) Data for 2000 to 2004 relate to persons aged 15-69 years. Data from 2006 onwards relate to persons aged 15 years and over. (c) State or territory of usual residence in the reference week of the survey.

**Source(s):** Data available on request, Labour Mobility Survey, 2000-2013

## RETRENCHMENTS BY INDUSTRY

The greatest numbers of persons retrenched in the twelve months to February 2013 were in the construction, retail trade and manufacturing industries. Together these three industries accounted for 38% of all retrenched persons. As construction and retail trade were two of the three largest employers in February 2013, the contribution of these two industries to the retrenchment level is not surprising. The contribution of the manufacturing industry to the retrenchment level is consistent with the long-term decline in manufacturing's share of total employment.

The retrenchment rate by industry<sup>4</sup> (table 1) shows a slightly different pattern compared with the level data. The highest rates in the 12 months to February 2013 were in the electricity, gas, water and waste services (6.4%), construction (6.4%) and mining (6.0) industries. Electricity, gas, water and waste services and mining both had lower levels of retrenchment, but were two of the industries with a relatively low employment base, which resulted in a higher rate. Conversely, the retail trade and professional, scientific and technical services industries both had relatively high numbers of retrenched persons, but with a relatively large employment base, did not have significantly high retrenchment rates (3.5% and 3.7% respectively) compared to other industries.

Table 1. PROPORTION OF RETRENCHED PERSONS AND RETRENCHMENT RATE(a), By industry: February 2013

Labour force status in reference week of survey	Number of persons retrenched	Share of all employees retrenched	Persons working at February 2012	Retrenchment rate(a)
	'000	%	'000	%
Agriculture, forestry and fishing	*5.4	*1.4	322.5	*1.7
Mining	15.4	4.0	257.1	6.0
Manufacturing	39.9	10.5	888.6	4.5
Electricity, gas, water and waste services	*8.7	*2.3	136.7	*6.4
Construction	64.7	17.0	1 008.1	6.4
Wholesale trade	14.7	3.9	450.2	3.3
Retail trade	40.4	10.6	1 150.7	3.5
Accommodation and food services	29.2	7.7	718.9	4.1
Transport, postal and warehousing	23.1	6.1	587.7	3.9
Information media and telecommunications	*6.7	*1.8	217.7	*3.1
Financial and insurance services	*12.2	*3.2	411.4	*3.0
Rental, hiring and real estate services	*7.5	*2.0	184.2	*4.1
Professional, scientific and technical services	33.5	8.8	914.8	3.7
Administrative and support services	15.4	4.0	362.6	4.2
Public administration and safety	18.1	4.8	733.7	2.5
Education and training	12.3	3.2	887.6	1.4
Health care and social assistance	20.1	5.3	1 360.3	1.5
Arts and recreation services	*3.4	*0.9	190.7	*1.8
Other services	10.4	2.7	447.2	2.3
<b>Total</b>	<b>381.4</b>	<b>100.0</b>	<b>11 230.7</b>	<b>3.4</b>

\* Estimate has a relative standard error of 25% to 50% and should be used with caution.

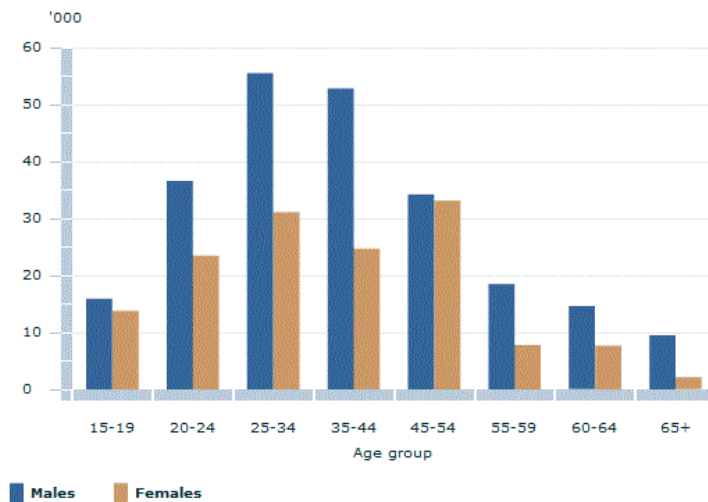
(a) The number of persons retrenched during the previous 12 months as a percentage of the number of people working at February 2012 (the beginning of the twelve month period). It is not possible to derive an estimate of the number of people employed by industry at some point over the 12 month period (the denominator used for the other rates in this article), so instead the level of employment at February 2012 (the beginning of the period) is used.

Source: Data available on request, Labour Mobility Survey, 2013

## DEMOGRAPHICS OF RETRENCHED PERSONS

The age distribution of the retrenched population (graph 3) closely resembles the age distribution of all persons aged 15 years and over who are employed i.e. the age groups with the largest numbers of persons retrenched during the 12 months to February 2013 (the 25-34, 35-44 and 45-54 years respectively), are also the same age groups with the largest number of employed persons. As with the industry analysis above, the retrenchment rate for each of the age groups (graph 4) shows a different pattern to the retrenchment level. For both males and females, the retrenchment rates were highest for the 20-24 (5.2% and 3.7% respectively) and 15-19 year age groups (4.1% and 3.5% respectively).

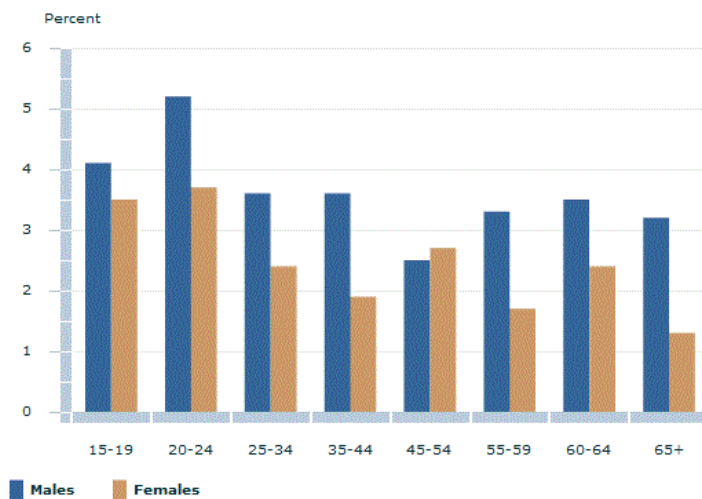
### 3. Persons retrenched in the previous 12 months(a), By age & sex, February 2013



**Footnote(s):** (a) Includes: employees who were laid off, including no work available, made redundant, employer went out of business or dismissed; and self employed people whose business closed down for economic reasons, including went broke, liquidated, no work, or no supply or demand.

**Source(s):** Data available on request, Labour Mobility Survey, 2013

### 4. Retrenchment rate(a), By age & sex, February 2013

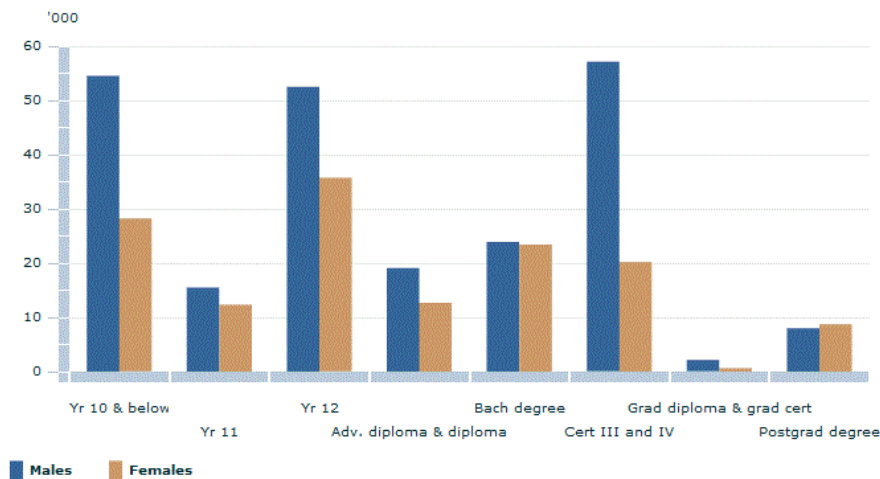


**Footnote(s):** (a) The number of persons retrenched during the previous 12 months as a percentage of all people who had been employed at some time over the same period.

**Source(s):** Data available on request, Labour Mobility Survey, 2013

With the exception of people with postgraduate degrees, retrenchment rates decreased as educational attainment increased (graph 5) i.e. in the 12 months to February 2013 the rates were highest for those with a highest educational attainment of Year 11 and Year 10 or below (3.8% and 4.1% respectively), and generally decreased as the highest attainment reached bachelor degree and graduate diploma/certificate (1.9% and 0.9% respectively). While there was a relatively small number of people with postgraduate degrees retrenched in the 12 months to February 2013, the small number of people employed with these higher degrees meant that they had a higher rate than those with bachelor degrees (2.5% compared to 1.9% respectively).

5. Persons retrenched in the previous 12 months(a), February 2013, highest educational attainment



**Footnote(s):** (a) Includes: employees who were laid off, including no work available, made redundant, employer went out of business or dismissed; and self employed people whose business closed down for economic reasons, including went broke, liquidated, no work, or no supply or demand.

**Source(s):** Data available on request, Labour Mobility Survey, 2013

## LABOUR FORCE OUTCOMES OF RETRENCHED PERSONS

Of those retrenched in the 12 months to February 2013, 50% were employed at the end of that period, while 29% were unemployed and 22% were not in the labour force (table 2). Among those employed, many had changed at least one aspect of the work they had previously done: 27% had changed industry; 19% had changed occupation; 33% had changed their hours of work; and 17% had a change of employment type (for example from employee to an owner-manager of an incorporated or unincorporated enterprise, or vice versa). Those changing their industry, occupation, hours of work or employment type may have changed several of these aspects, whilst others may have only changed one.

The labour force outcomes of those retrenched in the 12 months to February 2006 and February 2000 were not statistically significantly different from those from February 2013.

**Table 2. PERSONS RETRENCHED DURING THE PREVIOUS 12 MONTHS, Labour force status in the reference week of the survey**

	February 2000	February 2006	February 2013
Labour force status in reference week of survey	%	%	%
Employed	46.4	54.0	49.5
Changed industry(a)	24.4	28.8	26.8
Changed occupation(a)	18.5	20.9	19.0
Changed employment type(a)	n/a	21.5	17.1
Changed usual hours worked(a)	n/a	38.6	33.1
Unemployed	29.9	28.7	28.9
Not in the labour force	23.7	17.3	21.6
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

n/a Not collected in the 2000 Labour Mobility Survey.

(a) These categories are not mutually exclusive.

Source: Data available on request, Labour Mobility Survey, 2013

## FORTHCOMING IMPROVEMENTS TO ABS RETRENCHMENT DATA

Information on retrenchments is important in understanding the performance of the labour market, particularly during economic downturns. While this analysis has made the most of the largely biennial data on retrenchments from the Labour Mobility Survey, the picture on retrenchments is limited due to its biennial frequency and 12-month perspective. This means that for example in the post-global financial crisis downturn, retrenchment data is only available for the periods prior to February 2008 and following February 2010, and it is difficult to infer the pattern of retrenchments in the period in between (which included the start of global financial crisis).

To better inform on changes in the labour market the ABS will introduce a comprehensive and more frequent measure of retrenchments in the Labour Force Survey (LFS). The ABS will commence collecting information on retrenchments on a quarterly basis in the LFS from August 2014. Data will be presented on the numbers retrenched, as well as a retrenchment rate derived as a proportion of the number of people employed in the previous quarter. These data are expected to be available from the May 2015 issue and will be presented by labour force status by state; by labour force status by sex; and by age by sex.

## FURTHER INFORMATION

For more information about the information presented in this article, please contact the Labour Market Statistics Section on (02) 6252 7206 or email [labour.statistics@abs.gov.au](mailto:labour.statistics@abs.gov.au).

## END NOTES

1. Retrenchment estimates presented in this analysis do not necessarily capture all people who were retrenched (or all instances of retrenchment) in the 12 month period. The Labour Mobility Survey only collects information on the reason for a person ceasing their last job in a 12 month period. It would not capture people who were retrenched in the twelve month period, but then commenced and ceased a subsequent job for another reason. Likewise, in the case of people who were retrenched more than once in the twelve month period, it would only capture the retrenchment from their last job.

2. Retrenchments defined in this article include persons who ceased their last job because they were either:

- employees who were laid off, including no work available, made redundant, employer went out of business or dismissed; and
- self employed people whose business closed down for economic reasons, including 'went broke', liquidated, no work, or no supply or demand.

3. Data by state and territory relates to the person's usual residence in the survey reference week, which may differ from the state or territory where the retrenchment occurred.

4. It is not possible to derive an estimate of the number of people employed by industry at some point over the 12 month period (the denominator used for the other rates in this article), so instead the level of employment at February 2012 (the beginning of the period) is used.

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## How does the ABS measure unemployment

The ABS's monthly labour force estimates, including the unemployment rate, are widely recognised as key indicators of labour market performance. To be unemployed in the LFS, a person must be without work in the reference week, actively looking for work in the previous four weeks, and available to start work in the reference week. The ABS uses a short reference period to give a snapshot of the available labour supply at a point in time. This is in line with agreed international statistical definitions, and the key indicators have been measured in a consistent way since 1966.

To provide a comprehensive picture of the labour market performance, the ABS publishes more than just the unemployment rate. In addition to headline indicators on employment and unemployment, the ABS publishes measures of underemployment, labour force underutilisation, long term unemployment and those marginally attached to the labour force.

### FURTHER INFORMATION

For more information about the information presented in this article, please contact the Labour Market Statistics Section on (02) 6252 7206 or email [labour.statistics@abs.gov.au](mailto:labour.statistics@abs.gov.au).

### END NOTES

1. The two groups with marginal attachment to the labour force are:

- people who are actively looking for work and who could start within four weeks, but are not available to start in the reference week; and
- discouraged job seekers. Discouraged job seekers are defined as people who want to work and could start work within four weeks if offered a job, but whose main reason for not actively looking for work includes the following reasons: considered to be too young or too old by employers; believes ill health or disability discourages employers; lacked necessary schooling, training, skills or experience; difficulties because of language or ethnic background; no jobs in their locality or line of work; no jobs in suitable hours; and no jobs at all.

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## The unemployed and recipients of government unemployment benefits - differences explained

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### THE UNEMPLOYED AND RECIPIENTS OF GOVERNMENT UNEMPLOYMENT BENEFITS - DIFFERENCES EXPLAINED

#### INTRODUCTION

Comparisons are often made between the official unemployment estimates produced by the ABS and counts of recipients of government job seeker income support produced by the Department of Social Services<sup>1</sup>. While both measures inform policy makers and analysts about people seeking employment, the two measures differ in many ways.

This article explores the definition, scope and concepts behind the two measures and also examines the key differences between them.

#### THE ABS MEASURE OF UNEMPLOYMENT

The ABS classifies individuals as either employed, unemployed or not in the labour force based on their activity in the survey reference week. This is done by collecting information from a representative sample of Australians every month, in which they are asked a range of questions such as: whether or not they are working; and if they are not working, whether they looked for work; and whether they were available to start work. The answers to these questions allow the ABS to accurately estimate the number of people aged 15 years and over who satisfy the ABS definition of unemployed.

The ABS estimates of unemployment are based on the number of people without work, who are actively seeking work and who are available for work in the survey reference week<sup>2</sup>. This is in line with agreed international statistical definitions, and has been measured in a consistent way since the Labour Force Survey was first conducted in 1966. For more information on how unemployment is defined see the article *How does the ABS measure unemployment*, in this issue of *Australian Labour Market Statistics* (cat. no. 6105.0).

The ABS does not use information on whether people receive a government job seeker income support payment to measure unemployment.

## RECIPIENTS OF GOVERNMENT JOB SEEKER INCOME SUPPORT

The measure of recipients of job seeker income support is based on administrative data and is the count of the number of people receiving Newstart Allowance (NSA) or Youth Allowance (Other) (YAO) - which are the two primary income support payments for job seekers.

NSA is payable to eligible people aged 22 years and over (but below the Age Pension age) who are willing to undertake suitable paid employment and participate in approved activities and/or job search<sup>3</sup>. Youth Allowance is payable to eligible full-time students aged 16 to 25 years, and to eligible persons aged 16 to 21 who satisfy the activity test<sup>4</sup>. YAO recipients are Youth Allowance recipients who are neither full-time students nor full-time Australian Apprentices.

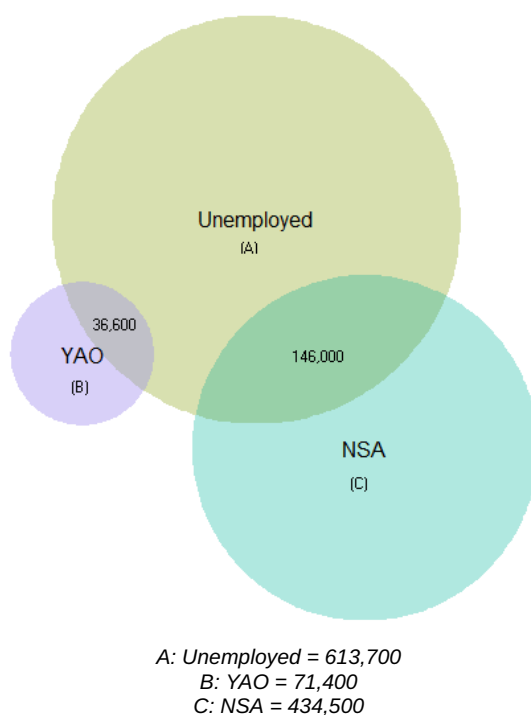
### OVERLAP BETWEEN THE TWO MEASURES

The ABS Survey of Income and Housing (SIH) is used in this article to demonstrate the extent of overlap between the two measures. In this survey, the ABS collects detailed information from people about all of their current sources of income, including government pensions and allowances. Information collected in the survey is used to estimate the labour force status of people receiving job seeker income support payments.

The SIH data provides information on whether people receive NSA or Youth Allowance, but it does not separately identify those recipients who only receive YAO. However, excluding full-time students from the SIH data, leaves a population that approximates YAO, although full-time apprentices are still included. This analysis provides an approximation of recipients of job seeker income support by including the following populations from the SIH: those receiving NSA, and the approximated YAO population.

Figure 1 shows that while there is a group of individuals who were unemployed and received a government job seeker income support payment in 2011-12, the majority of the unemployed were not receiving NSA or YAO. It also shows that not all people receiving NSA or YAO were classified as unemployed according to the ABS definition. In 2011-12, just over one-third (36%) of these recipients were defined as unemployed, with the remaining recipients classified as employed (26%) or not in the labour force (38%). Furthermore, the SIH estimates that only 30% of all unemployed people were receiving NSA or YAO in 2011-12.

**Figure 1. VENN DIAGRAM OF THE UNEMPLOYED AND RECIPIENTS OF NSA AND YAO: 2011-12.**



Source: ABS Survey of Income and Housing 2011-12 - data available on request.

## REASONS FOR THE DIFFERENCES IN THE ABS UNEMPLOYMENT MEASURE AND COUNTS OF JOB SEEKER INCOME SUPPORT RECIPIENTS

### Unemployed who are not job seeker income support recipients

People who are counted as unemployed by the ABS may not receive job seeker income support for a number of reasons. In addition to activity test requirements, applicants for NSA and YAO are subject to personal income and assets tests for themselves and their spouse. Unemployed people may not be eligible to receive income support payments if their partner's income, or value of own assets, exceeds the amount specified in the relevant personal income and asset test<sup>5</sup>. They may also be subject to an income maintenance period where a recent leave or redundancy payment from their previous employer is treated as income for the income test.

Some unemployed people may only expect to be out of work for only a short period, and may choose to support themselves financially through savings or the income of a spouse/partner. Others may be receiving another type of income support payment (such as the Parenting Payment or Disability Support Payment).

### Job seeker income support recipients who are not unemployed

As noted above, there are a number of people who receive a job seeker income support but would not be included in the ABS' unemployment estimates. A job seeker income support recipient would not be classified by the ABS as unemployed if they undertook one hour or more of paid work in the reference week, or have not actively looked for work in the previous four weeks or are not available to start work immediately.

Job seeker income support recipients are able to undertake some paid work and continue to receive their payment until the income from that paid work reaches a specified level, at which time they become ineligible to receive further benefits. Recipients who undertook one hour or more of paid work in the reference week would not be classified as unemployed according to the ABS definition; rather they would be classified as employed.

Other recipients may be engaged in training, study or full-time voluntary work as part of the activity test requirements, which may mean that they are not available to start work. These people would not be classified as unemployed according to the ABS definition as they are not available to start work in the survey reference week; rather they would be classified as not in the labour force, and could form part of the group of people described as *marginally attached* to the labour force<sup>6</sup>.

Also some recipients may be temporarily exempt from the activity test requirements due to personal circumstances such as illness, homelessness or major personal crisis. These people would not be classified as unemployed according to the ABS definition if they did not actively look for work in the previous four weeks; rather they would be classified as not in the labour force, and also could form part of those *marginally attached* to the labour force.

## SUMMARY

While the ABS unemployment measure and counts of recipients of government job seeker income support payments both inform policy makers and analysts on people seeking employment, they differ in many ways. Not all people receiving NSA and YAO are unemployed according to the ABS definition, and conversely, only a proportion of all those classified by the ABS as unemployed received NSA or YAO in 2011-12.

The ABS unemployment measure is the official measure of unemployment in Australia and is the best source for an estimate of the number of unemployed persons and the unemployment rate. Counts of persons in receipt of government job seeker income support payments refer to those job seekers who have registered with the Department of Human Services for financial support during their search for work.

## FURTHER INFORMATION

For further information on the ABS unemployment estimates see Labour Force, Australia, (cat. no. 6202.0). For further information on the concept and definition of unemployment see Chapter 6 of Labour Statistics: Concepts, Sources and Methods (cat. no. 6102.0.55.001). For more information about the information presented in this article, please contact the Labour Market Statistics Section on (02) 6252 7206 or email [labour.statistics@abs.gov.au](mailto:labour.statistics@abs.gov.au).

For further information on the Department of Social Services (DSS) claimant count data see Labour Market and Related Payments. This publication is produced on a monthly basis by DSS and includes information on the history of labour market payments, as well as small area estimates of claimant count data. This publication was produced previously by the Department of Education, Employment and Workplace Relations (DEEWR).

For further information on the various types of labour market or job seeker income support payments and the eligibility criteria refer to Department of Human Services website.

## END NOTES

1. The counts of recipients of government job seeker income support are produced on a monthly basis in the publication *Labour Market and Related Payments - a monthly profile*. This publication presents statistical information on the various types of labour market payments delivered by the Department of Human Services on behalf of the Department of Social Services. (Department of Social Services, viewed 2 July 2014, <<http://www.dss.gov.au/about-the-department/labour-market-and-related-payments-monthly-profile-publications>>).

2. ABS defines the unemployed as: persons aged 15 years and over who were not employed during the reference week, and:

- had actively looked for full-time or part-time work at any time in the four weeks up to the end of the reference week and were available for work in the reference week; or
- were waiting to start a new job within four weeks from the end of the reference week and could have started in the reference week if the job had been available then.

3. Newstart Allowance is payable to eligible people aged 22 years and over (but below Age Pension age) who are willing to undertake suitable paid employment and, unless exempted, participate in approved activities and/or job search. To satisfy the activity test recipients must be actively seeking and willing to take up paid employment or undertaking activities to improve their employment prospects (Department of Human Services, viewed 23 May 2014, <<http://www.humanservices.gov.au/customer/enablers/centrelink/newstart-allowance/eligibility-for-newstart-allowance>>).

4. Youth Allowance is payable to eligible people aged 16–21 who satisfy the activity test or aged up to 24 if undertaking full-time study. To satisfy the activity test recipients must be actively seeking and willing to take up paid employment or undertaking activities to improve their employment prospects. People aged over 24 may be eligible if they were receiving Youth Allowance as an Australian Apprentice or full-time student before turning 24 and continue in that course or apprenticeship. Youth Allowance (Other) recipients are Youth Allowance recipients who are neither full-time students nor full-time Australian Apprentices (Department of Human Services, viewed 23 May 2014, <<http://www.humanservices.gov.au/customer/enablers/centrelink/youth-allowance/eligibility-for-youth-allowance>>).

5. Applicants of Newstart Allowance and Youth Allowance are subject to income and assets tests and thresholds. This varies according to whether the recipient: is single; is a member of a couple; has dependent children; is a dependent young person; or is aged over 60. Recipients are also subject to: parental and personal means test or personal means test (if the person is independent and single); or the partner and personal means test (if the person is independent and a member of a couple). The parental means test applies to dependent young persons, including those required to live away from home. From 1 July 2013 the rate reduces by 20 cents for every \$1 the parent's income exceeds \$47,815. There is also an asset test and family actual means test (Department of Human Services, viewed 23 May 2014, <<http://www.humanservices.gov.au/customer/enablers/income-test-allowances>>).

6. People considered marginally attached to the labour force are those who were not in the labour force in the reference week, wanted to work and:

- were actively looking for work but did not meet the availability criterion to be classified as unemployed; or
- were not actively looking for work but were available to start work within four weeks.

## Understanding earnings in Australia using ABS statistics

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### UNDERSTANDING EARNINGS IN AUSTRALIA USING ABS STATISTICS

#### INTRODUCTION

Information about wages and salaries paid to employees is used for many purposes including economic analysis, social research, policy formation and evaluation, and research by employer and employee associations. The ABS publishes a variety of information on wages and salaries (generally referred to as 'earnings'), from both household and employer surveys.

#### KEY POINTS:

- The ABS produces earnings statistics from a number of different sources, including both household and employer surveys, which provide a wide range of data for a variety of purposes.
- The decision on which data to draw on depends on the purpose and type of analysis to be undertaken.
- Estimates from a given source may differ from estimates from other sources as a result of differences in scope, coverage and methodology.
- Many factors contribute to the level of, and changes in, earnings. These factors can be difficult to analyse independently as most are inherent in the changes in employment patterns and composition, wage rates, and hours worked.
- Data collected at the individual level allow for compositional and distributional analysis, which makes it easier to try and account for the differences in employment patterns. The ABS encourages users to consider relevant factors when analysing data, and in general the more factors which are taken into consideration the more robust such analysis will be.

This article explores some of the earnings statistics produced by the ABS, through:

- defining earnings statistics;
- identifying ABS sources of earnings and related statistics;
- highlighting relative strengths and limitations of the sources to provide guidance on the appropriate use;
- describing the three main labour surveys that provide earnings statistics (Survey of Employee, Earnings and Hours (EEH); Survey of Average Weekly Earnings (AWE); Survey of Employee, Earnings, Benefits and Trade Union Membership (EEBTUM)); and the Wage Price Index (WPI); and highlighting the differences between them; and
- demonstrating uses of earnings statistics through examples on distributional and compositional analysis, gender wage analysis and wage movement analysis.

#### WHAT DO WE MEAN BY EARNINGS?

In the broadest sense, earnings can be thought of as amounts paid by employers to employees for work done. More specifically, earnings are the pre-tax amount paid to employees for work done or time worked (including paid leave). In concept, earnings include 'payments-in-kind' - i.e. the value of 'non-cash' goods or services provided to employees (fringe benefits), however in practice in ABS collections they are not included. Wages and salaries in cash also conceptually includes the value of goods and services obtained through salary sacrifice arrangements, where it is the choice of the employee. For more information on the conceptual framework for employee remuneration see Information paper: Changes to ABS measures of employee remuneration, 2006 (cat. no. 6313.0).

Earnings in ABS statistics are consistent with international definitions determined by the International Labour Organisation and in the System of National Accounts (2008).

For more detailed definitions and descriptions of the concept of earnings, refer to Chapter 12 of Labour Statistics: Concepts, Sources and Methods (cat. no. 6102.0.55.001).

#### EARNINGS and EMPLOYEE INCOME: are they the same?

Labour statistics produced by the ABS provide information on the concept of earnings, not income. Employee income statistics are conceptually broader than earnings and are generally produced under the suite of social statistics.

#### Earnings include:

- wages and salaries in cash;
- regular bonuses; and
- salary sacrifice amounts - the value of goods and services obtained through salary sacrifice arrangements, where the employee chooses to forgo part of wages and salaries in cash in return for goods and services.

#### Earnings exclude (but are included in Employee Income):

- payments in kind - the value of non-cash goods or services provided to employees (fringe benefits);
- employers' contributions in respect of their employees paid to social security and pension schemes and also the benefits received by employees under these schemes (e.g. superannuation); and
- severance and termination pay.

**Employee Income** is an employee's total remuneration, whether in cash or in kind, received as a return to labour from an employer or from a person's own incorporated business. It includes:

- wages and salaries (in cash);
- bonuses (irregular, one-off);
- salary sacrificed amounts;
- non-cash benefits (including wages and salary in-kind) - free or subsidised goods and services from an employer such as the use of motor vehicles and subsidised housing; and

- severance and termination payments.

**Total Personal Income** is a broader concept which includes other monetary receipts such as government pensions and benefits, investment income, profit or loss from an unincorporated business, and private transfers (such as superannuation, child support etc).

## KEY SOURCES OF EARNINGS DATA

The ABS produces earnings statistics, as well as earnings related measures, from a range of sources. The major sources of earning statistics in the ABS, and the publications in which they are released, are:

SOURCES OF EARNINGS DATA	
Survey of Employee Earnings and Hours (cat. no. 6306.0)	<ul style="list-style-type: none"> <li>• composition and distribution of earnings of employees, hours paid for, and whether their pay is set by award, collective agreement or individual arrangement.</li> </ul>
Survey of Average Weekly Earnings (cat. no. 6302.0)	<ul style="list-style-type: none"> <li>• the average weekly earnings of employees.</li> </ul>
Survey of Employee Earnings, Benefits and Trade Union Membership (cat. no. 6310.0)	<ul style="list-style-type: none"> <li>• information on weekly earnings of employees, their employment benefits and trade union membership.</li> </ul>
Wage Price Index, Australia (cat. no. 6345.0)	<ul style="list-style-type: none"> <li>• changes in the price of wages and salaries resulting from market pressures.</li> </ul>
Australian System of National Accounts (cat. no. 5204.0) and Australian National Accounts: National Income, Expenditure and Product (cat. no. 5206.0)	<ul style="list-style-type: none"> <li>• compensation of employees, a very broad concept of employee remuneration.</li> </ul>
Survey of Income and Housing (cat. no. 6523.0)	<ul style="list-style-type: none"> <li>• a breakdown of household income, including wages and salaries.</li> </ul>
Major Labour Costs Survey (cat. no. 6348.0)	<ul style="list-style-type: none"> <li>• total earnings as well as other labour costs borne by businesses, for example payroll tax.</li> </ul>
Survey of Employment and Earnings (cat. no. 6248.0.55.002)	<ul style="list-style-type: none"> <li>• public sector employee earnings paid by level of Government.</li> </ul>
Quarterly Business Indicators Survey (cat. no. 5676.0)	<ul style="list-style-type: none"> <li>• private sector wages and salaries paid to employees, and other business costs e.g. investment.</li> </ul>
Wage and Salary Earner Statistics for Small Areas, Time Series, 2005-06 to 2010-11 (cat. no. 5673.0.55.003)	<ul style="list-style-type: none"> <li>• regional estimates of wages and salaries based on postcode level aggregates of the Australian Tax Office's Individual Income Tax Return Database.</li> </ul>

Household and employer surveys which are used by the ABS to collect earnings statistics have different strengths and limitations. It is important to be aware of these differences when analysing the data.

STRENGTHS AND LIMITATIONS OF ABS EARNINGS DATA SOURCES	
Employer surveys earnings data	Household surveys earnings data
<p>Employer surveys provide:</p> <ul style="list-style-type: none"> <li>• more accurately reported earnings as data are obtained from employers' payrolls;</li> <li>• components of earnings collected separately (i.e. ordinary time and overtime earnings); and</li> <li>• consistent business characteristics (such as industry and business size), as this information is maintained on the ABS Business Register.</li> </ul> <p>Limitations include:</p> <ul style="list-style-type: none"> <li>• limited socio-demographic characteristics of employees;</li> <li>• limited information about characteristics of employment; and</li> <li>• only state/territory geographic information about place of work available.</li> </ul>	<p>Household surveys provide:</p> <ul style="list-style-type: none"> <li>• earnings by socio-demographic characteristics;</li> <li>• earnings by a range of employment characteristics, such as paid leave entitlements; and</li> <li>• greater geographic information about place of usual residence including Statistical Area level 4 under the Australian Statistical Geography Standard.</li> </ul> <p>Limitations include:</p> <ul style="list-style-type: none"> <li>• earnings are less robust, with reliance on respondents' accurate recall of (pre-tax) earnings;</li> <li>• some respondents report on behalf of others in the household which can affect the quality of data reported;</li> <li>• fewer and less robust information about business characteristics; and</li> <li>• components of earnings estimates not available.</li> </ul>

The rest of this article focusses on three key ABS labour surveys providing estimates of earnings and explains the purpose and key outputs of each, as well as their benefits and limitations. The surveys are:

- the two-yearly EEH survey (cat. no. 6306.0);
- the six-monthly AWE survey (cat. no. 6302.0); and
- the annual EEBTUM survey (cat. no. 6310.0). The last issue of this publication is being released on 4 June 2014. In the future earnings data will be available in a new publication titled Characteristics of Employment, Australia (cat. no. 6333.0). The first release of this publication will be in respect of August 2014 and will be released in mid 2015.

In addition, the ABS WPI (cat. no. 6345.0), which provides a measure of changes in wages and salaries paid by employers for a unit of labour (i.e. hour) over time, is discussed as movements in WPI are often compared to AWE.

The first two surveys, EEH and AWE are employer surveys and measure earnings related to a 'point in time' (e.g. a pay period). They collect



wages and salaries in cash that are received regularly and frequently (e.g. exclude one-off bonuses) and include payments for employees on paid leave.

EEBTUM is a household survey and also collects earnings at a 'point in time', the most recent pay period, i.e. the last total pay. It collects wages and salaries in cash, before tax or any other deductions. As the survey collects amounts of "total last pay", it may include irregular and infrequent payments or bonuses, and payments related to other periods.

### Survey of Employee Earnings and Hours

The two-yearly EEH provides statistics on the composition and distribution of employee earnings, the hours paid for, and the methods used to set their pay. From 2006, estimates of earnings from EEH have included amounts salary sacrificed.

The information in EEH is collected from businesses but at the individual employee level. This makes it possible to derive measures of distribution (e.g. medians, deciles, earnings ranges) and provide some information on individual characteristics of employees. The median is a better measure of 'central tendency' than the mean when distributions are uneven or skewed, as the mean can be heavily influenced by outliers in the distribution. This is discussed in more detail later.

EEH also provides some information on individual characteristics of employees. These include: managerial/non-managerial status; occupation; sex; full-time/part-time status; adult/junior status; type of employee (permanent, fixed-term contract or casual); method of setting pay (i.e. award only, collective agreement and individual arrangement); and hours paid for. From 2014 onwards age of employee will also be collected in EEH. The EEH survey therefore complements the AWE survey by providing detailed information on the composition and distribution of employee earnings and hours, however on a less frequent basis.

A key strength of EEH is that it allows for hourly measures of earnings to be derived (currently only for non-managerial employees). Hourly earnings measures are useful for comparisons between groups who may work different weekly hours.

Non-managerial adult hourly ordinary time earnings from EEH is a widely used measure, since it allows as much of a like-for-like comparison as possible, facilitating comparison of earnings for different population groups. For example directly comparing the weekly earnings of full-time and part-time employees would not take hours paid for into account.

### Survey of Average Weekly Earnings

The six-monthly AWE is currently the most frequently available source of the level of earnings. It is designed to provide estimates of the level of average earnings at a point in time, and while not designed for movements in earnings, the frequency of collection supports a time series of these level estimates. Data on the average level of earnings are useful for providing a level benchmark to compare a specific amount to an average level of earnings e.g. what an individual earns compared to the average.

AWE has the longest history of the three ABS earnings sources discussed in this article. Collecting average earnings data is relatively simple and can produce estimates in a timely manner. While not designed as an index of wages, it is extensively referenced in legislation for indexation purposes.

Data are obtained from selected businesses on the total earnings (ordinary time and overtime) paid to their employees and the total number of employees in the business, which together are used to derive the mean, or average, earnings. These sample data are then weighted to provide estimates for the whole population of in scope businesses. Estimates are available by state/territory, sex, industry and sector.

The three key earnings series (excluding amounts salary sacrificed) produced from AWE are:

- Average weekly ordinary time earnings (AWOTE) for full-time adult employees;
- Average weekly total earnings (AWTE) for full-time adult employees; and
- Average weekly total earnings for all employees.

The earnings series from AWE historically excluded amounts salary sacrificed. As discussed above, amounts salary sacrificed are conceptually part of wages and salaries in cash, however, the key earnings series from AWE have continued to be published on the old conceptual basis (i.e. exclusive of amounts salary sacrificed) to maintain long term comparability of the key series. Since the May 2011 AWE publication, the Average Weekly Cash Earnings (AWCE) series have also been released. These series are inclusive of salary sacrificed amounts. For more information see the Explanatory Notes of the AWE publication (cat. no. 6302.0) and Information paper: Changes to average weekly earnings, Australia (cat. no. 6302.0.55.002).

Out of the three series produced from AWE, the AWOTE for full-time adult employees series is generally considered the most stable earnings series due to the exclusion of overtime and part-time and junior employees, however it should be noted that the series does not represent all employees. AWTE for full-time employees has higher levels compared to AWOTE for full-time employees as it includes overtime. AWTE series for all employees has the lowest levels as it includes the earnings of part-time and junior employees, who receive lower pay on average than full-time adult employees.

Compositional changes in the employee population (e.g. the mix between full-time and part-time employees, or the industries and/or occupations in which they work) and the composition of the survey samples selected, can impact on the level of average earnings. For example, if there is an increase in part-time employment then, all other things being equal, the average weekly total earnings series for all employees would be expected to decrease.

### EEH and AWE - some definitions

**Employee** refers to all civilian wage and salary earners who received pay for any part of the reference period excluding:

- working proprietors and partners of unincorporated businesses;
- employees paid under the Australian Government's Paid Parental Leave Scheme;
- employees based outside Australia;
- persons paid by commission only; and
- non-salaried directors.

**Full-time employees** are permanent, temporary and casual employees who normally work the agreed or award hours for a full-time employee in their occupation and received pay for any part of the reference period. If agreed or award hours do not apply, employees are regarded as full-time if they ordinarily work 35 hours or more per week.

**Adult employees** are those employees 21 years of age or over, and employees under 21 years old who are paid at the full adult rate for their occupation. **Junior employees** are aged under 21 who are not paid at the adult rate of pay for their occupation. Junior employee earnings are included in the average weekly total earnings for all employees.

**Average weekly earnings** represent average gross (before tax) earnings of employees and do not relate to average award rates, or to the earnings of the 'average person'. Estimates of average weekly earnings are derived by dividing estimates of weekly total earnings by estimates of number of employees.

**Weekly ordinary time earnings** refers to one week's earnings of employees for the reference period attributable to award, standard or agreed hours of work. It is calculated before taxation and any other deductions (e.g. superannuation, board and lodging) have been made.

**Weekly overtime earnings** refers to one week's earnings of employees for the reference period relating to payment for hours in excess of award, standard or agreed hours of work.

**Weekly total earnings** refers to weekly ordinary time earnings plus weekly overtime earnings of employees.

Excluded from the **scope** of EEH and AWE are the following:

- members of the Australian permanent defence forces;
- employees of enterprises primarily involved in the Agriculture, forestry and fishing industry;
- employees of private households; and
- employees of overseas embassies, consulates, etc.

### Survey of Employee Earnings, Benefits and Trade Union Membership

EEBTUM is a household survey, conducted annually as a supplement to the monthly Labour Force Survey (LFS). This survey collects weekly earnings data together with a range of socio-demographic information collected from individual people, such as: sex; age; marital status; relationship in household; geographic region of usual residence; school attendance; country of birth; and year of arrival in Australia.

EEBTUM also collects details about the nature of employment, including: occupation; industry; hours worked (hours paid for, hours actually worked and hours usually worked); full-time/part-time status based on hours worked; sector; size of workplace; and leave entitlements. From 2007, EEBTUM has included amounts salary sacrificed in the estimates of earnings.

As EEBTUM is collected at the individual employee level, like the EEH survey, this means that measures of earnings distribution (e.g. medians, deciles, earnings ranges) are able to be produced.

### EEBTUM - some definitions

**Employees** refers to people who:

- work for a public or private employer; and
- receive remuneration in wages or a salary; or are paid a retainer fee by their employer and worked on a commission basis, or for tips, piece-rates or payment-in-kind; or
- operate their own incorporated enterprise with or without hiring employees.

Employees who work solely for payment-in-kind are excluded.

**Full-time employees** are those employees who usually work 35 hours or more a week (in all jobs) and others who, although usually working fewer than 35 hours a week, worked 35 hours or more during the reference week. **Full-time employees in main job** are those employees who are:

- Single job holders who usually work 35 hours or more a week, or usually work fewer than 35 hours but worked 35 hours or more during the reference week; or
- Multiple job holders who usually work 35 hours or more in their main job and those who, although usually working fewer than 35 hours in their main job, worked 35 hours or more during the reference week.

**Part-time employees** are those employees who usually work fewer than 35 hours a week (in all jobs) and either did so in during the reference week, or were not at work in the reference week. **Part-time employees in main job** are those employees who are:

- Single job holders who usually work fewer than 35 hours a week, and did so in the reference week; or
- Multiple job holders who usually worked fewer than 35 hours in their main job in the reference week, or were away from their main job but usually work fewer than 35 hours a week in their main job.

**Second job** is a job, other than main job, in which some hours were worked during the reference week.

**Weekly earnings** are amount of 'last total pay' (i.e. before tax, salary sacrifice and other deductions had been made) from wages and salaries for jobs (all and main) held in the week prior to interview. For persons paid other than weekly, earnings are converted to a weekly equivalent. No adjustment is made for any back payment of wage increases, prepayment of leave or bonuses, etc.

Excluded from the **scope** of EEBTUM are the following:

- members of the permanent defence forces;
- certain diplomatic personnel of overseas governments, customarily excluded from the Census and estimated population;
- overseas residents in Australia;
- members of non-Australian defence forces (and their dependants); and
- students at boarding schools, patients in hospitals, residents of homes (e.g. retirement homes, homes for people with disabilities), and inmates of prisons.

The three surveys discussed above have important differences in concepts, scope and methodology, which can result in different estimates

of weekly earnings. Therefore, care should be taken when comparing estimates of earnings from these surveys. The main differences are described in the box below.

### Differences between AWE, EEH and EEBTUM

AWE and EEH are both employer surveys, however EEH provides more detailed information from a larger sample, but is less frequent than AWE. Additionally, the two collections differ in **sample design** and **survey methodologies**. As mentioned earlier, AWE collects information relating to the total gross earnings and the total number of employees of employer units selected in the survey. The average weekly earnings measures are derived by dividing estimates of total gross earnings by the estimated number of employees. EEH collects information about weekly earnings of a sample of employees within the selected employer units. For more information see Chapter 29. Survey of Average Weekly Earnings and Chapter 30. Survey of Employee Earnings and Hours in Labour Statistics: Concepts, Sources and Methods (cat. no. 6102.0.55.001).

EEBTUM is a household survey and so differs from employer surveys in **scope**, **sample design** and **survey methodologies**.

The employer surveys exclude employees in the industries of Agriculture, forestry and fishing; and Private households employing staff. EEBTUM includes all civilian employees usual resident in Australia except: students at boarding school; patients in hospitals; residents of homes; inmates of prisons; Aboriginal and Torres Strait Islander communities in very remote parts of Australia; and, those who worked solely for payment-in-kind in their main job.

EEBTUM collects information from respondents who are either interviewed personally, or another adult member of their household responds on their behalf. Where earnings are not known exactly, an estimate is reported. AWE collects information from employers who complete a questionnaire with details of the total gross earnings paid to employees and the total number of employees in the business. EEH collects information about weekly earnings of a sample of employees within the selected employer unit. The business surveys are completed with information from the employers' payroll.

Industry information is collected differently for the different surveys. For employer surveys, industry is generally assigned according to the information on the ABS Business Register. In the household survey, industry is assigned based on the respondent's description of the industry activity at the place where the person works.

### Wage Price Index

The WPI measures changes in wages and salaries paid by employers for a unit (i.e. hour) of labour where the quality and quantity of labour are held constant. It is widely used as a measure of wage and salary inflation in the economy.

While AWE provides estimates of the level of earnings at a point in time, the quarterly WPI is a more relevant indicator for changes in the rates of pay. For further information on the WPI, please refer to the Explanatory Notes of Wage Price Index, Australia (cat. no. 6345.0) and Wage Price Index: Concepts, Sources and Methods (cat. no. 6351.0.55.001).

Period-to-period movements for the AWE series are not necessarily comparable with those for the WPI. It is important to recognise that the two series have different purposes and concepts, and use different sample selection, rotation, and estimation methodologies.

The WPI measures change in the price employers pay for labour that arise from market factors. Specifically, the WPI measures change in the price of wages and salaries. As a price index the quantity and quality of labour services are held constant, changes in the composition of the labour force, hours worked, or changes in characteristics of employees (e.g. work performance) are all excluded from the index. For the WPI this is achieved by ensuring that identical jobs are priced from one period to the next. This is referred to as pricing to constant quality.

### USES OF EARNINGS DATA

Earnings statistics provide information on both the levels and movements in average earnings, and on the distribution of earnings for different groups of employees. Earnings statistics available from ABS sources provide key indicators to help inform policy, research and discussions of important labour market issues such as pay equity, social welfare, wage setting and income distribution. It is important to understand the relative strengths and limitations of the various earnings sources to ensure appropriate interpretation of the statistics.

As discussed above, there are a number of earning series available from ABS sources, and differences are observed when comparing these sources over time. Many factors contribute to the divergence in earnings, such as changes in wage rates, variations in hours worked, and changes in the composition of the employee work force.

The following sections provide a number of examples of the use of earnings statistics, namely: distributional and compositional analysis; gender comparisons; and wage movements.

#### Distributional and Compositional Analysis

Distributional and compositional analysis can help answer questions such as:

- what is the distribution of earnings paid to employees, or a group of employees?
- is the distribution different for different groups of employees? and
- if so, what factors or characteristics of employees are driving those differences?

#### Mean, Median and Frequency distribution - definitions

**Mean earnings:** The amount obtained by dividing the total earnings of a group by the number of employees in that group.

**Median earnings:** The amount of earnings which divides employees into two groups containing equal numbers of employees, one half with earnings below the median and the other half with earnings above the median.

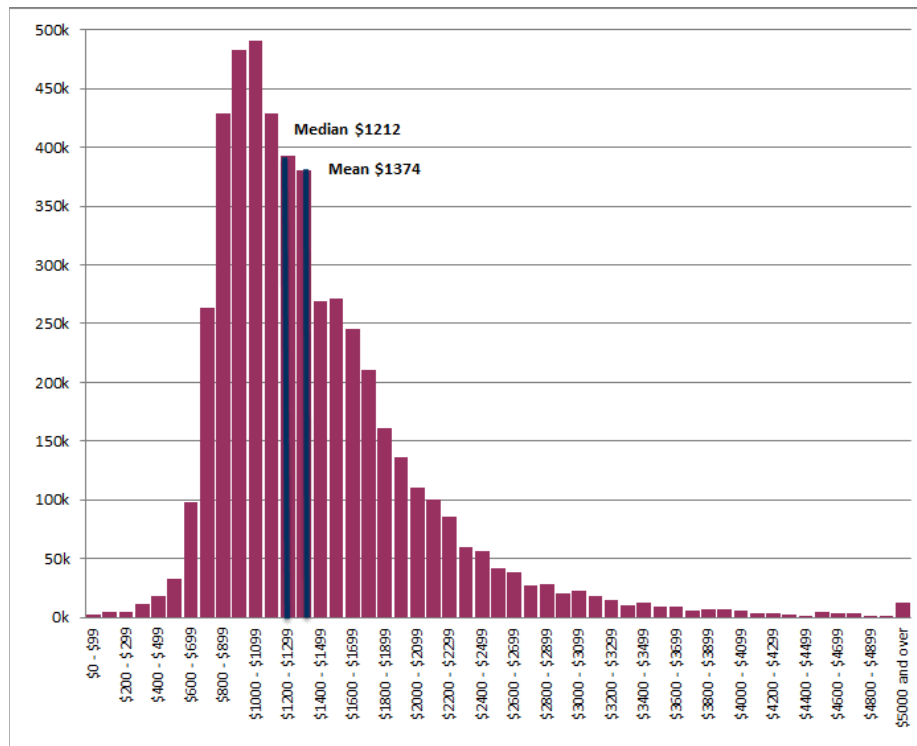
**Frequency distribution:** Frequency distribution of earnings show the spread of earnings within a population of interest, i.e. how much of the population have earnings at different levels, from very low to very high. This can show how earnings vary across a population.

It is useful to examine the distribution of earnings to determine whether most employees receive earnings near the average, or whether a few highly paid employees increase average earnings. When analysing earnings data, which has a skewed distribution with a long right-tail, the median is a better indicator of central tendency than the mean. However, to derive a median value, earnings for each employee in the survey are needed, i.e. the whole distribution. Both the EEH and EEBTUM collections provide distributional data as standard outputs.

Mean earnings are usually higher than the median as the mean earnings are influenced by outliers (graph 1). Relatively small numbers of highly paid employees contribute more to the numerator when deriving the mean, which results in a higher average. Generally, the larger the gap between the mean and the median for a group of employees, the more uneven is the distribution of earnings for that group of employees, indicating that a greater proportion of employees have earnings at the lower end of the distribution.

The graph below shows the distribution of non-managerial adult hourly ordinary time earnings from EEH, May 2012 survey. EEH data are more robust for analysing the distribution of earnings, as information is collected from businesses (from their payroll) but at an individual employee level. However, the EEH survey (used in graph 1) only has a limited number of characteristics of employees.

**Graph 1: TOTAL WEEKLY CASH EARNINGS, Adult full-time non-managerial employees: May 2012**



Source: ABS data available on request, Survey of Employee Earnings and Hours, May 2012.

Weekly earnings are affected not only by changes in the rate of pay, but also by any changes in the composition of the Australian workforce, including:

- diversity of employment arrangements;
- number of hours worked;
- the extent of part-time and casual employment; and
- mix of industries and occupations.

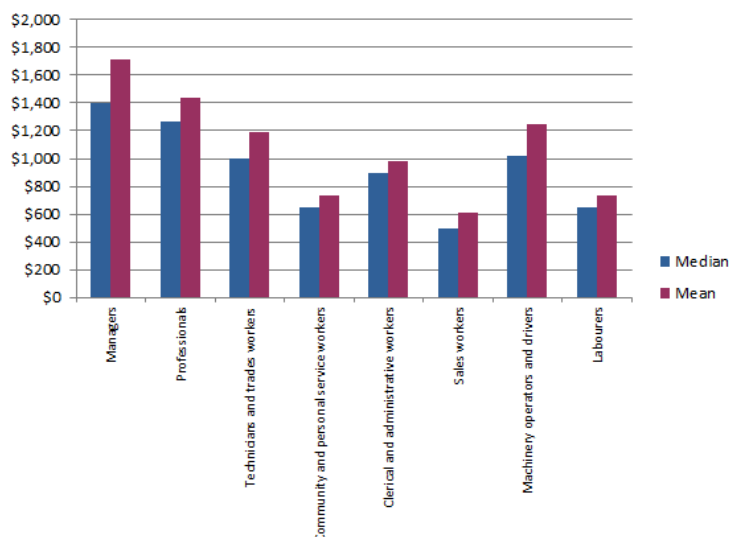
Many of these characteristics are not collected in employer surveys, however the household survey EEBTUM can provide insights into some of these through the availability of information about socio-demographic characteristics of employees.

EEBTUM data from August 2013 show there was a higher proportion of high earners in older age groups compared to younger age groups. The distribution of weekly earnings of employees in the age groups between 35 to 54 years were more skewed (i.e. wider gap between the mean and median), compared to those in the age groups between 15 to 24 or 25 to 34 years where the distribution is more equal (i.e. narrower gap between mean and median). The differences in the earnings distributions between younger and older groups can partly be explained by compositional differences between these two age groups.

A higher proportion of employees in the 35 to 44 and 45 to 54 year age groups work full-time in their main job. In August 2013, just over half (52%) of the employees in the 15 to 24 years age group worked full-time, whereas around three-quarters of employees in both the 35 to 44 and 45 to 54 year age groups worked full-time in their main job (73% and 72% respectively). A higher proportion of employees in the age group of 25 to 34 also work full-time (79%). This includes people who move to full-time work after completing their studies and, being a younger age group, tend to have less caring responsibilities (EEBTUM, August 2013).

The August 2013 data from EEBTUM also show that a far greater proportion of young employees were paid for few hours, 29% of employees (excluding OMIES) aged 15 to 24 years were paid for between 1 and 14 hours per week, compared with only 6% of employees (excluding OMIES) aged 25 to 54 years. This is a contributing factor towards the relatively lower weekly earnings in the 15 to 24 year age group. The middle age groups (those aged 35 to 44 and 45 to 54 years) have higher proportions of employees generally in higher skilled occupations, and are therefore higher paid. Over half of the employees in the Managers and Professionals major occupation groups are in the 35 to 54 years age group (54% and 57% respectively), resulting in higher median earnings for these age groups. Graph 2 below shows the mean and median earnings for the major occupation groups for August 2013.

**Graph 2: EMPLOYEES IN A MAIN JOB(a), mean and median weekly earnings by occupation: August 2013**



#### (a) Employees excluding OMIEs

Source: ABS data available on request, Survey of Employee Earnings, Benefits and Trade Union Membership, August 2013.

However caution should be exercised, as earnings estimates from EEBTUM are not as robust because they are reliant on respondents' (or another responsible adults') accurate recall of their (pre-tax) earnings. Also, measures provided from EEBTUM do not separate ordinary time earnings from overtime earnings.

#### Gender Comparisons

The earnings data collected by the ABS can to some extent support comparisons of earnings by gender. However careful consideration is needed, as many factors other than gender influence the observed differences in average earnings between males and females. These factors include labour market participation, hours worked, industry and occupation. Therefore the observed differences in earnings are generally a reflection of the differences in male and female working arrangements.

It may be necessary to analyse other data sources to get a more comprehensive picture of the composition of the workforce. The LFS provides more timely and robust information about the composition of the labour force, as the data are collected every month and from a larger sample of households. Therefore latest available data from the LFS has been used for analysis of compositional differences within the employed population in this section.

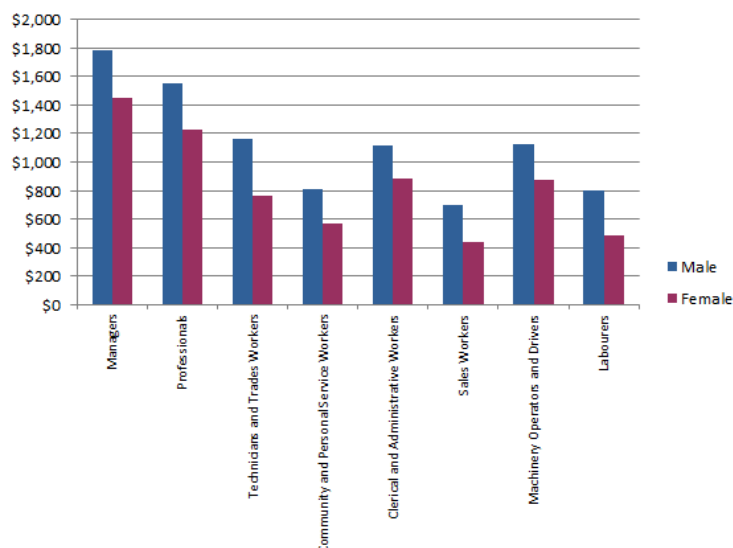
Generally, when looking at ABS statistics for average earnings, male employees earn higher weekly cash earnings than female employees. Much of the difference between earnings of different groups can be explained by a variety of factors including the variation of hours worked and the types of work done, e.g. different occupations or prevalence of part-time work. For example, LFS data shows that in April 2014, 83% of male employees worked full-time, while 54% of female employees were employed full-time. Females employed full-time usually worked fewer hours per week on average (40.8 hours) than males (44.6 hours), whereas females employed part-time usually worked 19.2 hours per week on average compared to males who usually worked 18.5 hours per week on average.

The distribution of weekly earnings are heavily influenced by the proportion of people employed part-time. For example, data from the February 2014 LFS shows that the major occupation groups Sales Workers, and Community and Personal Service Workers, had the majority of people employed part-time (56% and 51% respectively). These two major occupation groups also have a relatively high proportion of females. More than half (61%) of all Sales Workers were females, and 66% of those females worked part-time. Females also counted for the majority of Community and Personal Service Workers (68%), and of those females, 58% worked part-time. The earnings data from EEH, May 2012, shows that these two groups also had the lowest median weekly total cash earnings of all occupation groups, \$504 and \$636 respectively.

The occupation groups Professionals and Managers have higher proportions of people employed full-time and the highest median weekly earnings. Professionals had 89% of males and 66% of females employed full-time, and Managers had 93% of males and 76% of females employed full-time (LFS, February 2014). The median weekly total cash earnings for Professionals was \$1353 and for Managers it was \$1642 (EEH, May 2012).

LFS data from February 2014 shows that the vast majority of people employed as Machinery Operators and Drivers and Technicians and Trade Workers were male (92% and 86% respectively), and of these relatively few were employed part-time (14% of male Machinery Operators and Drivers and 9% of male Technicians and Trade Workers). These two occupation groups also had above average median weekly total cash earnings (\$1098 and \$1080 respectively) (EEH, May 2012).

#### Graph 3: MEDIAN WEEKLY TOTAL CASH EARNINGS FOR ALL EMPLOYEES, By occupation and by sex: May 2012

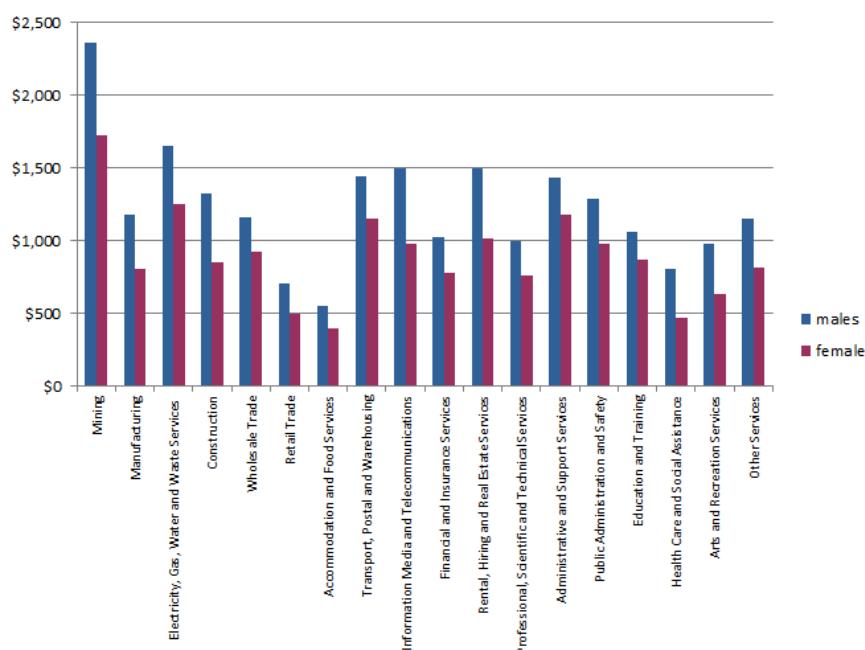


Source: ABS data available on request, Survey of Employee Earnings and Hours, May 2012.

The Accommodation and food services and Retail trade industries had the lowest levels of median weekly total cash earnings in May 2012 (EEH) (\$455 and \$590 respectively). LFS data from February 2014 shows that these two industries also have relatively high proportions of females (56% and 54% respectively) and a relatively high proportion of part-time employment. Retail trade had 48% of its workforce employed part-time, with 58% of females in this industry working part-time. Accommodation and food services had 57% of its employees working part-time with 62% of females in this industry working part-time.

The industry with the highest median earnings was Mining (\$2250 - EEH, May 2012), where 84% of the workforce were males working full-time (LFS, February 2014).

**Graph 4: MEDIAN WEEKLY TOTAL CASH EARNINGS FOR ALL EMPLOYEES, By industry and by sex: May 2012**



Source: ABS data available on request, Survey of Employee Earnings and Hours, May 2012.

As described above, differences in earnings between males and females could be due to many factors, including different jobs within different occupations or industries, differences in full-time and part-time work, and also hours worked. Therefore as many factors as possible should be considered when analysing data.

### Wage Movement Analysis

A key element in monitoring labour market and economic performance over time is examining changes in earnings. As earnings paid to employees represent a significant component of operating costs for businesses, changes in wages can highlight inflationary pressures facing businesses and/or impact on productivity. Changes in average earnings can also reflect the impact of the economic cycle on the labour market, or sectors within the labour market.

Up until recent times, WPI and AWE were both compiled on a quarterly basis, although AWE has recently changed to a biannual frequency with May 2012 being the last issue produced on a quarterly basis. Both WPI and AWE continue to be released in respect of May and November reference periods, and the common reference periods often lead to comparisons between the two series. Caution should be exercised when making such comparisons as differences in the purpose and design of the two collections means they will often respond differently to economic events.

Specifically, the WPI's focus on holding quality and quantity constant (to produce a measure of change in the price of a unit of labour) means

it is affected solely by broad labour market influences on rates of pay. AWE will be affected by a more comprehensive set of economic factors. These include: changes in wages and salaries associated with individual performance; changes in employment that can affect the distribution of various types of employees between two periods (e.g. full-time vs part-time; higher paid vs lower paid) or changes in the pattern of hours worked (e.g. increase in total hours worked, increase in overtime hours). All these changes can influence changes in earnings between two periods to different degrees, and can result in different movements being observed for WPI and AWE. It is recommended that WPI be used to measure the change in the price of labour, or changes in wages over time, for the reasons described above.

## CONCLUDING NOTE

Many factors contribute to the level and changes in earnings. These factors can be difficult to analyse independently, as most are inherent in the changes in employment patterns and composition, wage rates, hours worked and technological changes. Data gathered at the individual level, such as from the EEH and EEBTUM surveys, allow for compositional and distributional analysis, which makes it easier to try and account for the differences in employment patterns. The more factors which are taken into consideration when analysing data in general, the more robust such an analysis will be.

The various ABS sources of earnings information provide a wide range of data for a variety of purposes. Estimates from a given source may differ from estimates from other sources resulting from differences in scope, coverage and methodology. The decision on which data to draw on depends on the purpose and type of analysis to be undertaken.

The ABS encourages users to consider relevant factors in order to facilitate the most informed decision making.

More information on sources of earnings data, including conceptual or methodological differences, can be found in the Explanatory Notes of each publication, and in Labour Statistics: Concepts, Sources and Methods (cat. no. 6102.0.55.001).

For further information contact the Labour Market Statistics Section in Canberra on (02) 6252 7206 or email <labour.statistics@abs.gov.au>.

## APPENDIX 1

This appendix provides a summary of the ABS data sources or publications about earnings and earnings-related data.

	AWE	EEH	EEBTUM	WPI	National Accounts	Survey of Income and Housing	Survey of Major Labour Costs	Survey of Employment and Earnings	Quarterly Business Indicators Survey
Designed to measure	The level of average weekly earnings.	Weekly and hourly earnings and the distribution of earnings.	Earnings and the distribution of earnings.	Change in the price of labour.	Compensation of employees.	Total household income (including employment related income).	Labour costs for employers, including employee earnings.	Public sector employee jobs, and earnings.	Revenue, profits, inventory and wages paid by <i>private sector</i> businesses.
Frequency/Type of data source	Biannual business survey.	Biennial business survey with payroll employee component.	Annual household survey.	Quarterly business survey.	Quarterly compilation based primarily on quarterly business surveys.	Two-yearly household survey.	Irregular (currently run every 6 years) business survey.	Annual business survey.	Quarterly business survey.
Benefits	Time series data available (including seasonally adjusted and trend estimates).	Data cross-classified by employer and some employee characteristics. Distributional data available.	Detailed socio-demographic information. Distributional data available.	Estimate of pure wage inflation removing the effect of composition.	Broad measure of remuneration (includes, for example, annual bonuses and payment in kind).	Distributional data on the broader context of household income and components available (including labour income) cross-classified by several employee characteristics.	Earnings data in the broader context of labour costs. Data per employee also available.	Public sector estimates, by level of government.	Time series data available.
Primary publication	Average Weekly Earnings, Australia (cat. no. 6302.0).	Employee Earnings and Hours, Australia (cat. no. 6306.0).	Employee Earnings, Benefits and Trade Union Membership, Australia (cat. no. 6310.0).	Wage Price Index, Australia (cat. no. 6345.0).	Australian National Accounts: National Income, Expenditure and Product (cat. no. 5206.0).	Household Income and Income Distribution, Australia (cat. no. 6523.0).	Labour Costs, Australia (cat. no. 6348.0).	Employment and Earnings, Public Sector, Australia (cat. no. 6248.0.55.002).	Business Indicators, Australia (cat. no. 5676.0).

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### FURTHER INFORMATION

For further information or queries regarding labour related statistics, contact the Labour Market Statistics Section on (02) 6252 7206 or email <labour.statistics@abs.gov.au>.

Published information is available free of charge on the ABS website. Where data are not available on our website at the level of detail you require, the ABS may be able to provide you with customised data to meet your specific requirements. To discuss options and for help

finding and accessing ABS products and services please contact the National Information Referral Service on 1300 135 070. This service can provide a wide range of data on a fee for service basis and provide you with an obligation free quote.

All key labour statistical releases and publications can be found at the Key Labour Releases section of the Labour Topics @ a Glance page.

## **ABOUT THE ABS LABOUR STATISTICS PROGRAM**

### **Labour Market Statistics National Statistics Centre**

The Labour Market Statistics National Statistics Centre provides statistical leadership in the development, production and dissemination of labour market statistics. The area undertakes a range of activities to:

- promote the effective use of labour statistics;
- influence the development of national and international frameworks, and assist with their implementation; and
- improve the relevance of labour market statistics produced by the ABS.

The Labour Market Statistics National Statistics Centre represents the interests of key users to ensure that their requirements are reflected in the program of ABS household and employer based collections. It promotes strategies for increasing the awareness of, and access to, both ABS and non-ABS data on labour market issues. The Centre seeks to improve users' understanding of labour market data to assist in the effective use of this data in analysis of labour market issues. One way of achieving this is through maintaining the Labour Statistics: Concepts, Sources and Methods (cat. no. 6102.0.55.001).

### **Labour Employer Surveys Business Statistics Centre**

The Labour Employer Surveys Business Statistics Centre is responsible for a suite of national surveys which provide information about the structure and performance of the Australian labour market. Data are collected and produced in relation to average weekly earnings, job vacancies, industrial disputes, and employee earnings and hours.

### **Labour Force and Supplementary Surveys Household Survey Centre**

The Labour Force and Supplementary Surveys Household Survey Centre is responsible for the management of the Monthly Population Survey (MPS) which provides extensive information covering Australian labour supply and demand, and workplace relations. The MPS includes the Labour Force Survey, Labour Supplementary Surveys (LSS) and the Multipurpose Household Survey (MPHS). The Labour Force Survey provides monthly estimates of the number of employed and unemployed people, the unemployment rate and the labour force participation rate. The LSS and MPHS collect information on a range of labour topics including forms of employment, job search experience, labour mobility, employee earnings, benefits and trade union memberships, underemployed workers, people not in the labour force, retirement, and work-related injuries.

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## **Retrenchments (Feature Article)**

### **RETRENCHMENTS**

#### **INTRODUCTION**

Trends in retrenchment are of interest from both an economic and social perspective. From an economic perspective the level of retrenchments and industries associated with them can be used with other indicators (for example employment growth and aggregate hours worked) to understand the strength of the economy and the cyclical and structural changes occurring within it. From a social perspective, retrenchment represents a significant time of change in an individual's working life, and can be associated with a period of uncertainty and stress, as well as changes in financial security and may result in further job search or entrepreneurial activities.

This article examines retrenchments in Australia using data from the ABS' Labour Mobility Survey. It examines trends in retrenchments over the period February 2000 to February 2013, and highlights the characteristics and labour force outcomes of retrenched workers. The Labour Mobility Survey was conducted biennially between 2000 and 2012, and conducted again in 2013. Data relates to persons who reported being retrenched in the 12 months prior to the survey reference week<sup>1</sup>.

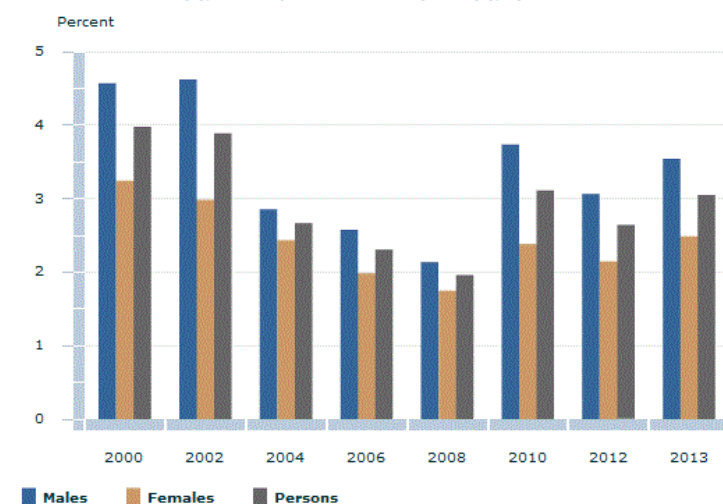
#### **RATE OF RETRENCHMENTS**

Approximately two million people ceased a job during the 12 months to February 2013. While the majority of these (60%) left their last job for voluntary reasons, 19% (or 381,000) left their last job because they were retrenched or had their job made redundant<sup>2</sup>. The remaining 21% left their last job because of their own ill-health or injury, or because the job was seasonal or temporary. When expressed as a proportion of all people who had been employed at some time over the previous 12 months, the rate of retrenchments in the 12 months to February 2013 was 3.1%.

The rate of retrenchments between 2000 and 2013 is shown in graph 1. Over this time, the rate fell from 4.0% in 2000 to a low of 2.0% in 2008, before increasing sharply in 2010 to 3.1%. It remained broadly at that level in 2012 and 2013 (2.6% and 3.1% respectively).



1. Retrenchment rate(a), February 2000 to February 2013(b), by sex



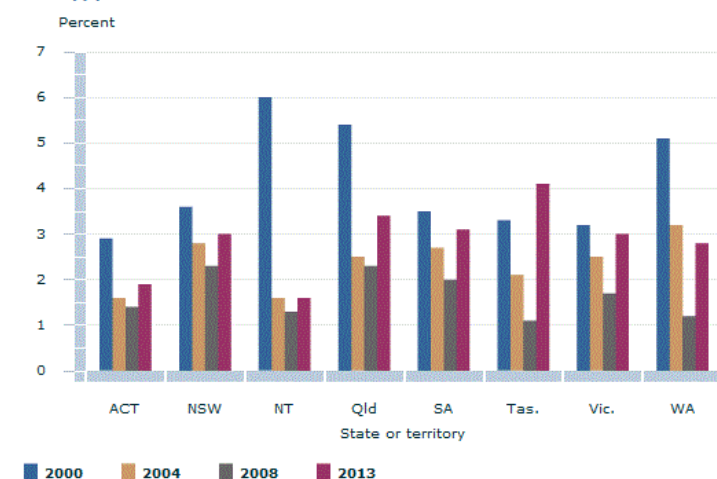
**Footnote(s):** (a) The number of persons retrenched during the previous 12 months as a percentage of all people who had been employed at some time over the same period. (b) Data for 2000 to 2004 relate to persons aged 15-69 years. Data from 2006 onwards relate to persons aged 15 years and over.

**Source(s):** Data available on request, Labour Mobility Survey, 2000-2013

When examining trends in retrenchments by sex (graph 1), it is evident that the retrenchment rate for men has been consistently higher than that for women (for example 3.5% and 2.5%, respectively in the 12 months to February 2013). A major factor influencing the different retrenchment rates for males and females was that men were more concentrated in those industries which had a higher rate of retrenchments (e.g. construction, mining, manufacturing), and the female dominated industries (education and training, health care and social assistance) have maintained relatively low rates of retrenchment.

Graph 2 shows the rate of retrenchments for each state and territory in the years ending February 2000, 2004, 2008 and 2013<sup>3</sup>. Each state and territory followed the trend of Australia's retrenchment rate over the same time period, in falling between 2000 and 2008 before increasing in the most recent period. In the 12 months to February 2000, the Northern Territory, Queensland and Western Australia had the highest retrenchment rates of the states and territories (6.0%, 5.4% and 5.1% respectively). In the 12 months to February 2013, Tasmania and Queensland had the highest retrenchment rates of the states and territories (4.1% and 3.4% respectively).

2. Retrenchment rate(a), Feb 2000, Feb 2004, Feb 2008 & Feb 2013(b), by state or territory(c)



**Footnote(s):** (a) The number of persons retrenched during the previous 12 months as a percentage of all people who had been employed at some time over the same period. (b) Data for 2000 to 2004 relate to persons aged 15-69 years. Data from 2006 onwards relate to persons aged 15 years and over. (c) State or territory of usual residence in the reference week of the survey.

**Source(s):** Data available on request, Labour Mobility Survey, 2000-2013

## RETRENCHMENTS BY INDUSTRY

The greatest numbers of persons retrenched in the twelve months to February 2013 were in the construction, retail trade and manufacturing industries. Together these three industries accounted for 38% of all retrenched persons. As construction and retail trade were two of the three largest employers in February 2013, the contribution of these two industries to the retrenchment level is not surprising. The contribution of the manufacturing industry to the retrenchment level is consistent with the long-term decline in manufacturing's share of total employment.

The retrenchment rate by industry<sup>4</sup> (table 1) shows a slightly different pattern compared with the level data. The highest rates in the 12 months to February 2013 were in the electricity, gas, water and waste services (6.4%), construction (6.4%) and mining (6.0) industries. Electricity, gas, water and waste services and mining both had lower levels of retrenchment, but were two of the industries with a relatively low employment base, which resulted in a higher rate. Conversely, the retail trade and professional, scientific and technical services industries both had relatively high numbers of retrenched persons, but with a relatively large employment base, did not have significantly high retrenchment rates (3.5% and 3.7% respectively) compared to other industries.

**Table 1. PROPORTION OF RETRENCHED PERSONS AND RETRENCHMENT RATE(a), By industry: February 2013**

	Number of persons retrenched	Share of all employees retrenched	Persons working at February 2012	Retrenchment rate(a)
Labour force status in reference week of survey	'000	%	'000	%
Agriculture, forestry and fishing	*5.4	*1.4	322.5	*1.7
Mining	15.4	4.0	257.1	6.0
Manufacturing	39.9	10.5	888.6	4.5
Electricity, gas, water and waste services	*8.7	*2.3	136.7	*6.4
Construction	64.7	17.0	1 008.1	6.4
Wholesale trade	14.7	3.9	450.2	3.3
Retail trade	40.4	10.6	1 150.7	3.5
Accommodation and food services	29.2	7.7	718.9	4.1
Transport, postal and warehousing	23.1	6.1	587.7	3.9
Information media and telecommunications	*6.7	*1.8	217.7	*3.1
Financial and insurance services	*12.2	*3.2	411.4	*3.0
Rental, hiring and real estate services	*7.5	*2.0	184.2	*4.1
Professional, scientific and technical services	33.5	8.8	914.8	3.7
Administrative and support services	15.4	4.0	362.6	4.2
Public administration and safety	18.1	4.8	733.7	2.5
Education and training	12.3	3.2	887.6	1.4
Health care and social assistance	20.1	5.3	1 360.3	1.5
Arts and recreation services	*3.4	*0.9	190.7	*1.8
Other services	10.4	2.7	447.2	2.3
<b>Total</b>	<b>381.4</b>	<b>100.0</b>	<b>11 230.7</b>	<b>3.4</b>

\* Estimate has a relative standard error of 25% to 50% and should be used with caution.

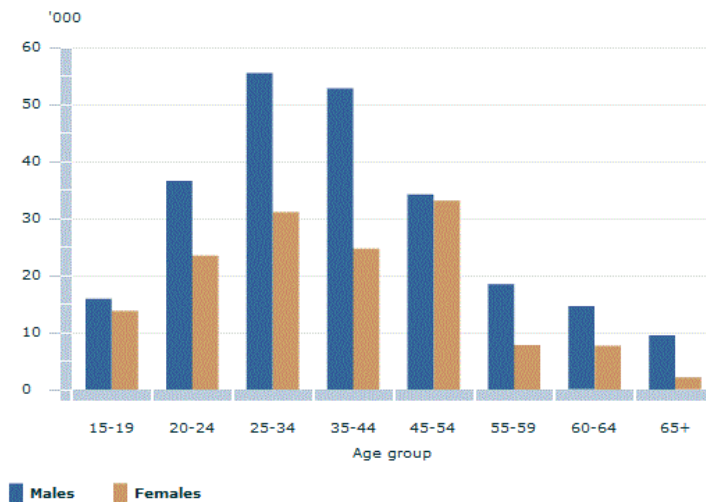
(a) The number of persons retrenched during the previous 12 months as a percentage of the number of people working at February 2012 (the beginning of the twelve month period). It is not possible to derive an estimate of the number of people employed by industry at some point over the 12 month period (the denominator used for the other rates in this article), so instead the level of employment at February 2012 (the beginning of the period) is used.

Source: Data available on request, Labour Mobility Survey, 2013

### DEMOGRAPHICS OF RETRENCHED PERSONS

The age distribution of the retrenched population (graph 3) closely resembles the age distribution of all persons aged 15 years and over who are employed i.e. the age groups with the largest numbers of persons retrenched during the 12 months to February 2013 (the 25-34, 35-44 and 45-54 years respectively), are also the same age groups with the largest number of employed persons. As with the industry analysis above, the retrenchment rate for each of the age groups (graph 4) shows a different pattern to the retrenchment level. For both males and females, the retrenchment rates were highest for the 20-24 (5.2% and 3.7% respectively) and 15-19 year age groups (4.1% and 3.5% respectively).

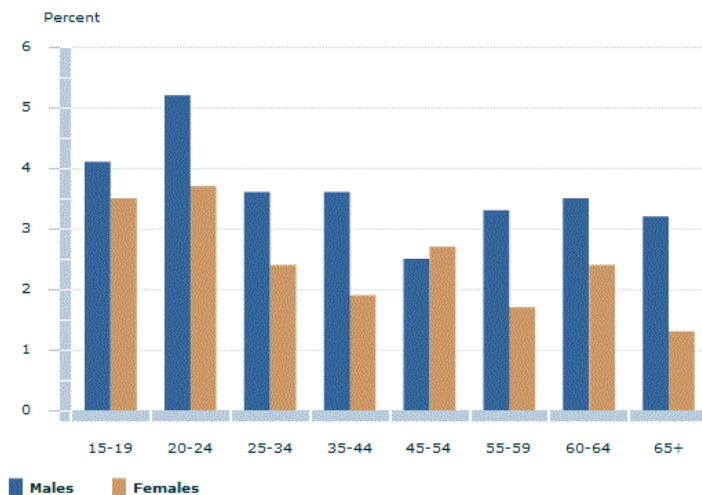
**3. Persons retrenched in the previous 12 months(a), By age & sex, February 2013**



**Footnote(s):** (a) Includes: employees who were laid off, including no work available, made redundant, employer went out of business or dismissed; and self employed people whose business closed down for economic reasons, including went broke, liquidated, no work, or no supply or demand.

**Source(s):** Data available on request, Labour Mobility Survey, 2013

4. Retrenchment rate(a), By age & sex, February 2013

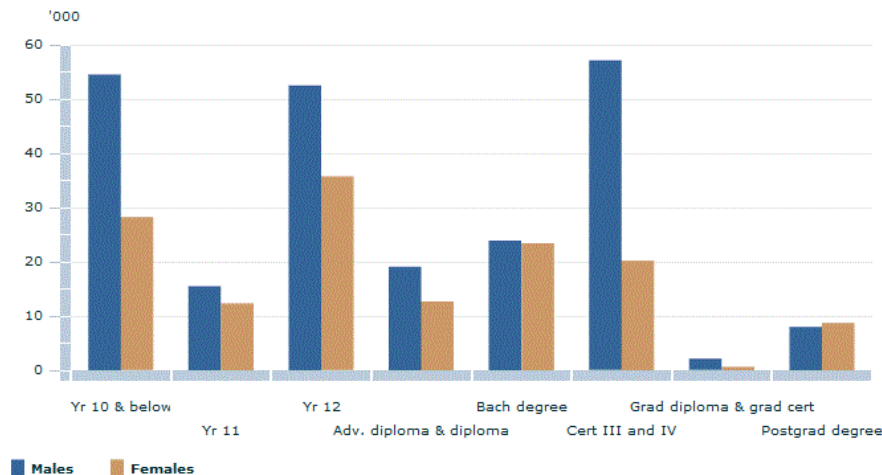


**Footnote(s):** (a) The number of persons retrenched during the previous 12 months as a percentage of all people who had been employed at some time over the same period.

**Source(s):** Data available on request, Labour Mobility Survey, 2013

With the exception of people with postgraduate degrees, retrenchment rates decreased as educational attainment increased (graph 5) i.e. in the 12 months to February 2013 the rates were highest for those with a highest educational attainment of Year 11 and Year 10 or below (3.8% and 4.1% respectively), and generally decreased as the highest attainment reached bachelor degree and graduate diploma/certificate (1.9% and 0.9% respectively). While there was a relatively small number of people with postgraduate degrees retrenched in the 12 months to February 2013, the small number of people employed with these higher degrees meant that they had a higher rate than those with bachelor degrees (2.5% compared to 1.9% respectively).

5. Persons retrenched in the previous 12 months(a), February 2013, highest educational attainment



**Footnote(s):** (a) Includes: employees who were laid off, including no work available, made redundant, employer went out of business or dismissed; and self employed people whose business closed down for economic reasons, including went broke, liquidated, no work, or no supply or demand.

**Source(s):** Data available on request, Labour Mobility Survey, 2013

## LABOUR FORCE OUTCOMES OF RETRENCHED PERSONS

Of those retrenched in the 12 months to February 2013, 50% were employed at the end of that period, while 29% were unemployed and 22% were not in the labour force (table 2). Among those employed, many had changed at least one aspect of the work they had previously done: 27% had changed industry; 19% had changed occupation; 33% had changed their hours of work; and 17% had a change of employment type (for example from employee to an owner-manager of an incorporated or unincorporated enterprise, or vice versa). Those changing their industry, occupation, hours of work or employment type may have changed several of these aspects, whilst others may have only changed one.

The labour force outcomes of those retrenched in the 12 months to February 2006 and February 2000 were not statistically significantly different from those from February 2013.

Table 2. PERSONS RETRENCHED DURING THE PREVIOUS 12 MONTHS, Labour force status in the reference week of the survey

	February 2000	February 2006	February 2013
Labour force status in reference week of survey	%	%	%
Employed	46.4	54.0	49.5
Changed industry(a)	24.4	28.8	26.8
Changed occupation(a)	18.5	20.9	19.0

Changed employment type(a)	n/a	21.5	17.1
Changed usual hours worked(a)	n/a	38.6	33.1
Unemployed	29.9	28.7	28.9
Not in the labour force	23.7	17.3	21.6
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

n/a Not collected in the 2000 Labour Mobility Survey.

(a) These categories are not mutually exclusive.

Source: Data available on request, Labour Mobility Survey, 2013

## FORTHCOMING IMPROVEMENTS TO ABS RETRENCHMENT DATA

Information on retrenchments is important in understanding the performance of the labour market, particularly during economic downturns. While this analysis has made the most of the largely biennial data on retrenchments from the Labour Mobility Survey, the picture on retrenchments is limited due to its biennial frequency and 12-month perspective. This means that for example in the post-global financial crisis downturn, retrenchment data is only available for the periods prior to February 2008 and following February 2010, and it is difficult to infer the pattern of retrenchments in the period in between (which included the start of global financial crisis).

To better inform on changes in the labour market the ABS will introduce a comprehensive and more frequent measure of retrenchments in the Labour Force Survey (LFS). The ABS will commence collecting information on retrenchments on a quarterly basis in the LFS from August 2014. Data will be presented on the numbers retrenched, as well as a retrenchment rate derived as a proportion of the number of people employed in the previous quarter. These data are expected to be available from the May 2015 issue and will be presented by labour force status by state; by labour force status by sex; and by age by sex.

## FURTHER INFORMATION

For more information about the information presented in this article, please contact the Labour Market Statistics Section on (02) 6252 7206 or email [labour.statistics@abs.gov.au](mailto:labour.statistics@abs.gov.au).

## END NOTES

1. Retrenchment estimates presented in this analysis do not necessarily capture all people who were retrenched (or all instances of retrenchment) in the 12 month period. The Labour Mobility Survey only collects information on the reason for a person ceasing their last job in a 12 month period. It would not capture people who were retrenched in the twelve month period, but then commenced and ceased a subsequent job for another reason. Likewise, in the case of people who were retrenched more than once in the twelve month period, it would only capture the retrenchment from their last job.

2. Retrenchments defined in this article include persons who ceased their last job because they were either:

- employees who were laid off, including no work available, made redundant, employer went out of business or dismissed; and
- self employed people whose business closed down for economic reasons, including 'went broke', liquidated, no work, or no supply or demand.

3. Data by state and territory relates to the person's usual residence in the survey reference week, which may differ from the state or territory where the retrenchment occurred.

4. It is not possible to derive an estimate of the number of people employed by industry at some point over the 12 month period (the denominator used for the other rates in this article), so instead the level of employment at February 2012 (the beginning of the period) is used.

## How does the ABS measure unemployment (Feature Article)

## HOW DOES THE ABS MEASURE UNEMPLOYMENT

### INTRODUCTION

The ABS unemployment data are key indicators of labour market performance. They present a snapshot of available labour supply at a particular point in time. The unemployment data are published monthly from the Labour Force Survey (LFS) in Labour Force, Australia (cat. no. 6202.0) and are presented by many characteristics including: age; sex; marital status; geography; country of birth and duration of job search.

### KEY POINTS:

- The ABS uses internationally agreed standards in defining unemployment and the key indicators have been measured in a consistent way since 1966.
- To be classified as unemployed a person needs to meet the following three criteria:
  - not working more than one hour in the reference week;
  - actively looking for work in previous four weeks; and
  - be available to start work in the reference week.
- The ABS produces a range of measures, in addition to the unemployment rate, to help users understand the extent of underutilised labour supply, such as underemployment.

The International Labour Organization (ILO) defines unemployed people as those who are: not working one hour or more; and actively seeking work; and currently available for work. The ABS adheres to the international standards and defines unemployed persons as those aged 15 years and over who were not employed during the reference week, and;

- had actively looked for full-time or part-time work at any time in the four weeks up to the end of the reference week, and were available for work in the reference week; or
- were waiting to start a new job within four weeks from the end of the reference week, and could have started in the reference week if the job had been available then.

### WHY DOES THE ABS DEFINE UNEMPLOYMENT THIS WAY?

As can be seen from the definition above, there are three criteria which determine labour force status, and therefore to categorise a person as unemployed, namely: whether they have work; and if not, whether they are actively looking for work; and whether they are available for work. Each of these criteria are examined in more detail below.

#### Without work

This criterion is used to distinguish between those who have work and those who do not. The ABS counts everyone who works for at least one hour in the reference week as employed. While a one hour cut-off point could be argued to be insufficient to sustain a family or person financially, there are several reasons for including everyone who works at least one hour a week as employed.

From an economic perspective, any time in paid work, no matter how small, contributes to economic production and is therefore included in the national accounts. Fundamentally, labour force statistics are economic indicators and need to be coherent with other economic measures.

Socially, it is recognised that employment is associated with improved psychological and social well-being. It is therefore important to distinguish between those who have any work (even if a small number of hours) and those who do not.

By applying the one hour criterion, the ABS is measuring unemployment in an internationally consistent manner, which enables governments and policy makers to draw on international comparisons.

If the one hour criterion was not used it is not clear what cut-off should apply. Some people who work for relatively few hours each week do not necessarily want to work more hours.

To complement the unemployment measure, the ABS recognises the potential economic and social impacts of underemployment (where people want to and are available to work more hours). Currently, people who work fewer than 35 hours per week are asked if they would like to work, and are available for, more hours. Data on underemployment - a measure of those employed people whose labour is not fully utilised - are currently available quarterly alongside the unemployment data, and will be available monthly from early 2015.

#### Actively seeking work

Only those who are taking active steps to find a job, or have done so in the past four weeks, are counted as unemployed. Through looking for work people make their willingness to work known and are therefore participating in the labour market. Only active job search steps are considered, as they are likely to result in the person making contact with prospective employers. Active job search steps include writing, telephoning or applying to an employer for work; answering an advertisement for a job; checking or registering with an employment agency; advertising or tendering for work; and contacting friends or relatives. Checking noticeboards and being registered with Centerlink as a jobseeker are currently also considered active job search steps but this will change from July 2014. For further detail, see the *Labour Statistics News* article in this issue of Australian Labour Market Statistics (cat. no. 6105.0).

Some people might want to work but have given up actively looking because they believe they will not find a job. These people are called discouraged jobseekers and are not considered to be unemployed. While they can be thought of as a 'potential pool of labour', until their circumstances or job search activities change, they are regarded as having marginal attachment to the labour force.

#### Currently available for work

This criterion is needed to ensure that the unemployment data represent a snapshot of current available labour supply at a particular point in time. The short time period to define 'current availability' allows meaningful measures of current levels and changes in unemployment to be determined, as well as being consistent with the short reference period for people to be classified as employed.

Some people might like to work and are actively looking, but are not currently available to work, such as a parent looking after young children and needing to arrange childcare. Those who are actively looking for work and not currently available are also considered

marginally attached to the labour force.

## HOW DOES THE ABS MEASURE UNEMPLOYMENT?

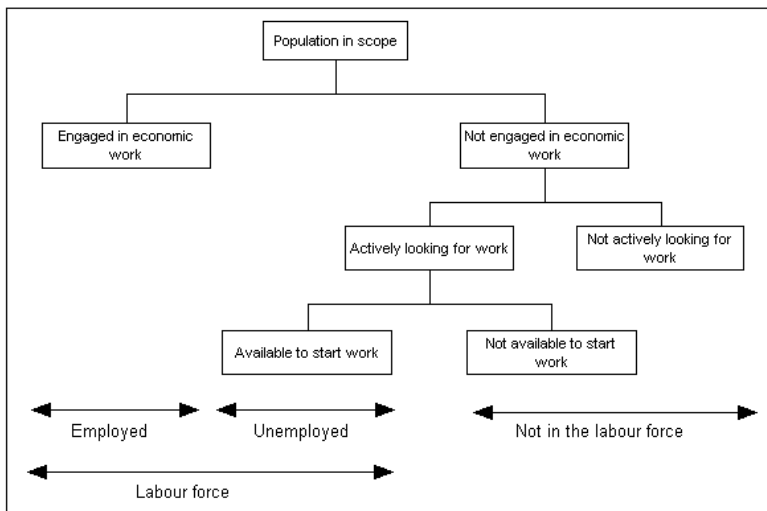
ABS measures unemployment by collecting data from a monthly survey of about 26,000 dwellings as well as a selection of hotels, hospitals, boarding schools, colleges, prisons and indigenous communities throughout Australia. Overall, data are collected from about 52,000 people, which forms a representative sample of the Australian population. Respondents are not asked whether they are 'unemployed'. Instead, the ABS uses self-guided online questionnaires or trained interviewers to ask a range of questions to determine whether a person is unemployed, based on the three criteria above. The ABS then scales up the people in the survey sample, using the most recent population figures, to provide a picture of the whole population.

The ABS unemployment measure is available on a consistent basis since 1966. For more information about the questionnaires used in the LFS see Information Paper Questionnaires Used in the Labour Force Survey (cat no. 6232.0).

The ABS provides information about the size of the sampling error to help users understand the reliability and accuracy of the estimates.

## THE ABS LABOUR FORCE FRAMEWORK

The ABS labour force framework below shows how the ABS classifies people as either employed, unemployed or not in the labour force.



## SUPPLEMENTARY MEASURES OF JOBLESSNESS AND LABOUR UNDERUTILISATION

While the unemployment rate is the most widely known and used measure of labour underutilisation, the ABS publishes a range of measures to supplement the unemployment rate.

They include:

- the underemployment rate: the number of people underemployed expressed as a proportion of the labour force;
- the labour force underutilisation rate: the unemployed, plus the underemployed, expressed as a percentage of the labour force;
- the long-term unemployment rate: the number of persons who have been unemployed for 12 months or more, as a percentage of the labour force;
- volume measures of labour underutilisation: the hours of labour sought by the unemployed and underemployed, as a percentage of the total potential hours in the labour force; and
- the extended labour force underutilisation rate: the unemployed, plus the underemployed, plus two groups<sup>1</sup> of persons marginally attached to the labour force, expressed as a proportion of the labour force augmented by the two groups of marginally attached persons.

These measures are explained in more detail and illustrated in the article Measures of labour underutilisation, in the January 2011 issue of Australian Labour Market Statistics (cat. no. 6105.0).

## SUMMARY

The ABS's monthly labour force estimates, including the unemployment rate, are widely recognised as key indicators of labour market performance. To be unemployed in the LFS, a person must be without work in the reference week, actively looking for work in the previous four weeks, and available to start work in the reference week. The ABS uses a short reference period to give a snapshot of the available labour supply at a point in time. This is in line with agreed international statistical definitions, and the key indicators have been measured in a consistent way since 1966.

To provide a comprehensive picture of the labour market performance, the ABS publishes more than just the unemployment rate. In addition to headline indicators on employment and unemployment, the ABS publishes measures of underemployment, labour force underutilisation, long term unemployment and those marginally attached to the labour force.

## FURTHER INFORMATION

For more information about the information presented in this article, please contact the Labour Market Statistics Section on (02) 6252 7206 or email [labour.statistics@abs.gov.au](mailto:labour.statistics@abs.gov.au).

## END NOTES

1. The two groups with marginal attachment to the labour force are:

- people who are actively looking for work and who could start within four weeks, but are not available to start in the reference

- week; and
- discouraged job seekers. Discouraged job seekers are defined as people who want to work and could start work within four weeks if offered a job, but whose main reason for not actively looking for work includes the following reasons: considered to be too young or too old by employers; believes ill health or disability discourages employers; lacked necessary schooling, training, skills or experience; difficulties because of language or ethnic background; no jobs in their locality or line of work; no jobs in suitable hours; and no jobs at all.

## The unemployed and recipients of government unemployment benefits - differences explained (Feature Article)

### THE UNEMPLOYED AND RECIPIENTS OF GOVERNMENT UNEMPLOYMENT BENEFITS - DIFFERENCES EXPLAINED

#### INTRODUCTION

Comparisons are often made between the official unemployment estimates produced by the ABS and counts of recipients of government job seeker income support produced by the Department of Social Services<sup>1</sup>. While both measures inform policy makers and analysts about people seeking employment, the two measures differ in many ways.

This article explores the definition, scope and concepts behind the two measures and also examines the key differences between them.

#### THE ABS MEASURE OF UNEMPLOYMENT

The ABS classifies individuals as either employed, unemployed or not in the labour force based on their activity in the survey reference week. This is done by collecting information from a representative sample of Australians every month, in which they are asked a range of questions such as: whether or not they are working; and if they are not working, whether they looked for work; and whether they were available to start work. The answers to these questions allow the ABS to accurately estimate the number of people aged 15 years and over who satisfy the ABS definition of unemployed.

The ABS estimates of unemployment are based on the number of people without work, who are actively seeking work and who are available for work in the survey reference week<sup>2</sup>. This is in line with agreed international statistical definitions, and has been measured in a consistent way since the Labour Force Survey was first conducted in 1966. For more information on how unemployment is defined see the article *How does the ABS measure unemployment*, in this issue of *Australian Labour Market Statistics* (cat. no. 6105.0).

The ABS does not use information on whether people receive a government job seeker income support payment to measure unemployment.

#### RECIPIENTS OF GOVERNMENT JOB SEEKER INCOME SUPPORT

The measure of recipients of job seeker income support is based on administrative data and is the count of the number of people receiving Newstart Allowance (NSA) or Youth Allowance (Other) (YAO) - which are the two primary income support payments for job seekers.

NSA is payable to eligible people aged 22 years and over (but below the Age Pension age) who are willing to undertake suitable paid employment and participate in approved activities and/or job search<sup>3</sup>. Youth Allowance is payable to eligible full-time students aged 16 to 25 years, and to eligible persons aged 16 to 21 who satisfy the activity test<sup>4</sup>. YAO recipients are Youth Allowance recipients who are neither full-time students nor full-time Australian Apprentices.

#### OVERLAP BETWEEN THE TWO MEASURES

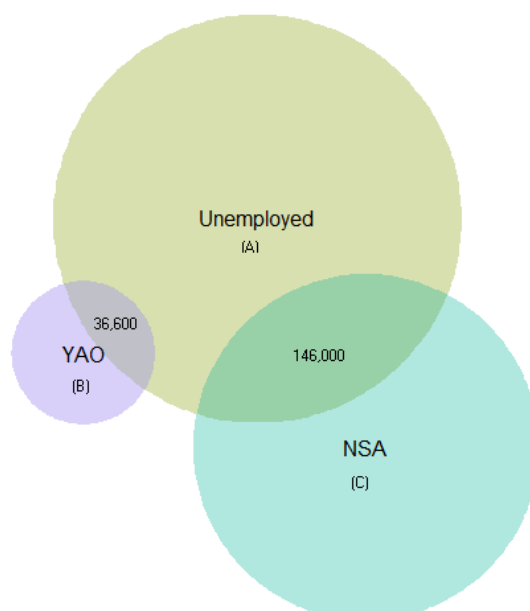
The ABS Survey of Income and Housing (SIH) is used in this article to demonstrate the extent of overlap between the two measures. In this survey, the ABS collects detailed information from people about all of their current sources of income, including government pensions and allowances. Information collected in the survey is used to estimate the labour force status of people receiving job seeker income support payments.

The SIH data provides information on whether people receive NSA or Youth Allowance, but it does not separately identify those recipients who only receive YAO. However, excluding full-time students from the SIH data, leaves a population that approximates YAO, although full-time apprentices are still included. This analysis provides an approximation of recipients of job seeker income support by including the following populations from the SIH: those receiving NSA, and the approximated YAO population.

Figure 1 shows that while there is a group of individuals who were unemployed and received a government job seeker income support payment in 2011-12, the majority of the unemployed were not receiving NSA or YAO. It also shows that not all people receiving NSA or YAO were classified as unemployed according to the ABS definition. In 2011-12, just over one-third (36%) of these recipients were defined as unemployed, with the remaining recipients classified as employed (26%) or not in the labour force (38%). Furthermore, the SIH estimates that only 30% of all unemployed people were receiving NSA or YAO in 2011-12.

**Figure 1. VENN DIAGRAM OF THE UNEMPLOYED AND RECIPIENTS OF NSA AND YAO: 2011-12.**





A: Unemployed = 613,700

B: YAO = 71,400

C: NSA = 434,500

Source: ABS Survey of Income and Housing 2011-12 - data available on request.

## REASONS FOR THE DIFFERENCES IN THE ABS UNEMPLOYMENT MEASURE AND COUNTS OF JOB SEEKER INCOME SUPPORT RECIPIENTS

### Unemployed who are not job seeker income support recipients

People who are counted as unemployed by the ABS may not receive job seeker income support for a number of reasons. In addition to activity test requirements, applicants for NSA and YAO are subject to personal income and assets tests for themselves and their spouse. Unemployed people may not be eligible to receive income support payments if their partner's income, or value of own assets, exceeds the amount specified in the relevant personal income and asset test<sup>5</sup>. They may also be subject to an income maintenance period where a recent leave or redundancy payment from their previous employer is treated as income for the income test.

Some unemployed people may only expect to be out of work for only a short period, and may choose to support themselves financially through savings or the income of a spouse/partner. Others may be receiving another type of income support payment (such as the Parenting Payment or Disability Support Payment).

### Job seeker income support recipients who are not unemployed

As noted above, there are a number of people who receive a job seeker income support but would not be included in the ABS' unemployment estimates. A job seeker income support recipient would not be classified by the ABS as unemployed if they undertook one hour or more of paid work in the reference week, or have not actively looked for work in the previous four weeks or are not available to start work immediately.

Job seeker income support recipients are able to undertake some paid work and continue to receive their payment until the income from that paid work reaches a specified level, at which time they become ineligible to receive further benefits. Recipients who undertook one hour or more of paid work in the reference week would not be classified as unemployed according to the ABS definition; rather they would be classified as employed.

Other recipients may be engaged in training, study or full-time voluntary work as part of the activity test requirements, which may mean that they are not available to start work. These people would not be classified as unemployed according to the ABS definition as they are not available to start work in the survey reference week; rather they would be classified as not in the labour force, and could form part of the group of people described as *marginally attached* to the labour force<sup>6</sup>.

Also some recipients may be temporarily exempt from the activity test requirements due to personal circumstances such as illness, homelessness or major personal crisis. These people would not be classified as unemployed according to the ABS definition if they did not actively look for work in the previous four weeks; rather they would be classified as not in the labour force, and also could form part of those *marginally attached* to the labour force.

## SUMMARY

While the ABS unemployment measure and counts of recipients of government job seeker income support payments both inform policy makers and analysts on people seeking employment, they differ in many ways. Not all people receiving NSA and YAO are unemployed according to the ABS definition, and conversely, only a proportion of all those classified by the ABS as unemployed received NSA or YAO in 2011-12.

The ABS unemployment measure is the official measure of unemployment in Australia and is the best source for an estimate of the number of unemployed persons and the unemployment rate. Counts of persons in receipt of government job seeker income support payments refer to those job seekers who have registered with the Department of Human Services for financial support during their search for work.

## FURTHER INFORMATION



For further information on the ABS unemployment estimates see Labour Force, Australia, (cat. no. 6202.0). For further information on the concept and definition of unemployment see Chapter 6 of Labour Statistics: Concepts, Sources and Methods (cat. no. 6102.0.55.001). For more information about the information presented in this article, please contact the Labour Market Statistics Section on (02) 6252 7206 or email [labour.statistics@abs.gov.au](mailto:labour.statistics@abs.gov.au).

For further information on the Department of Social Services (DSS) claimant count data see Labour Market and Related Payments. This publication is produced on a monthly basis by DSS and includes information on the history of labour market payments, as well as small area estimates of claimant count data. This publication was produced previously by the Department of Education, Employment and Workplace Relations (DEEWR).

For further information on the various types of labour market or job seeker income support payments and the eligibility criteria refer to Department of Human Services website.

## END NOTES

1. The counts of recipients of government job seeker income support are produced on a monthly basis in the publication *Labour Market and Related Payments - a monthly profile*. This publication presents statistical information on the various types of labour market payments delivered by the Department of Human Services on behalf of the Department of Social Services. (Department of Social Services, viewed 2 July 2014, <<http://www.dss.gov.au/about-the-department/labour-market-and-related-payments-monthly-profile-publications>>).

2. ABS defines the unemployed as: persons aged 15 years and over who were not employed during the reference week, and:

- had actively looked for full-time or part-time work at any time in the four weeks up to the end of the reference week and were available for work in the reference week; or
- were waiting to start a new job within four weeks from the end of the reference week and could have started in the reference week if the job had been available then.

3. Newstart Allowance is payable to eligible people aged 22 years and over (but below Age Pension age) who are willing to undertake suitable paid employment and, unless exempted, participate in approved activities and/or job search. To satisfy the activity test recipients must be actively seeking and willing to take up paid employment or undertaking activities to improve their employment prospects (Department of Human Services, viewed 23 May 2014, <<http://www.humanservices.gov.au/customer/enablers/centrelink/newstart-allowance/eligibility-for-newstart-allowance>>).

4. Youth Allowance is payable to eligible people aged 16–21 who satisfy the activity test or aged up to 24 if undertaking full-time study. To satisfy the activity test recipients must be actively seeking and willing to take up paid employment or undertaking activities to improve their employment prospects. People aged over 24 may be eligible if they were receiving Youth Allowance as an Australian Apprentice or full-time student before turning 24 and continue in that course or apprenticeship. Youth Allowance (Other) recipients are Youth Allowance recipients who are neither full-time students nor full-time Australian Apprentices (Department of Human Services, viewed 23 May 2014, <<http://www.humanservices.gov.au/customer/enablers/centrelink/youth-allowance/eligibility-for-youth-allowance>>).

5. Applicants of Newstart Allowance and Youth Allowance are subject to income and assets tests and thresholds. This varies according to whether the recipient: is single; is a member of a couple; has dependent children; is a dependent young person; or is aged over 60. Recipients are also subject to: parental and personal means test or personal means test (if the person is independent and single); or the partner and personal means test (if the person is independent and a member of a couple). The parental means test applies to dependent young persons, including those required to live away from home. From 1 July 2013 the rate reduces by 20 cents for every \$1 the parent's income exceeds \$47,815. There is also an asset test and family actual means test (Department of Human Services, viewed 23 May 2014, <<http://www.humanservices.gov.au/customer/enablers/income-test-allowances>>).

6. People considered marginally attached to the labour force are those who were not in the labour force in the reference week, wanted to work and:

- were actively looking for work but did not meet the availability criterion to be classified as unemployed; or
- were not actively looking for work but were available to start work within four weeks.

## Understanding earnings in Australia using ABS statistics (Feature Article)

### UNDERSTANDING EARNINGS IN AUSTRALIA USING ABS STATISTICS

#### INTRODUCTION

Information about wages and salaries paid to employees is used for many purposes including economic analysis, social research, policy formation and evaluation, and research by employer and employee associations. The ABS publishes a variety of information on wages and salaries (generally referred to as 'earnings'), from both household and employer surveys.

#### KEY POINTS:

- The ABS produces earnings statistics from a number of different sources, including both household and employer surveys, which provide a wide range of data for a variety of purposes.
- The decision on which data to draw on depends on the purpose and type of analysis to be undertaken.
- Estimates from a given source may differ from estimates from other sources as a result of differences in scope, coverage and methodology.
- Many factors contribute to the level of, and changes in, earnings. These factors can be difficult to analyse independently as most are inherent in the changes in employment patterns and composition, wage rates, and hours worked.
- Data collected at the individual level allow for compositional and distributional analysis, which makes it easier to try and account for the differences in employment patterns. The ABS encourages users to consider relevant factors when analysing data, and in general the more factors which are taken into consideration the more robust such analysis will be.

This article explores some of the earnings statistics produced by the ABS, through:

- defining earnings statistics;

- identifying ABS sources of earnings and related statistics;
- highlighting relative strengths and limitations of the sources to provide guidance on the appropriate use;
- describing the three main labour surveys that provide earnings statistics (Survey of Employee, Earnings and Hours (EEH); Survey of Average Weekly Earnings (AWE); Survey of Employee, Earnings, Benefits and Trade Union Membership (EEBTUM)); and the Wage Price Index (WPI); and highlighting the differences between them; and
- demonstrating uses of earnings statistics through examples on distributional and compositional analysis, gender wage analysis and wage movement analysis.

## WHAT DO WE MEAN BY EARNINGS?

In the broadest sense, earnings can be thought of as amounts paid by employers to employees for work done. More specifically, earnings are the pre-tax amount paid to employees for work done or time worked (including paid leave). In concept, earnings include 'payments-in-kind' - i.e. the value of 'non-cash' goods or services provided to employees (fringe benefits), however in practice in ABS collections they are not included. Wages and salaries in cash also conceptually includes the value of goods and services obtained through salary sacrifice arrangements, where it is the choice of the employee. For more information on the conceptual framework for employee remuneration see Information paper: Changes to ABS measures of employee remuneration, 2006 (cat. no. 6313.0).

Earnings in ABS statistics are consistent with international definitions determined by the International Labour Organisation and in the System of National Accounts (2008).

For more detailed definitions and descriptions of the concept of earnings, refer to Chapter 12 of Labour Statistics: Concepts, Sources and Methods (cat. no. 6102.0.55.001).

**EARNINGS and EMPLOYEE INCOME:** are they the same?

Labour statistics produced by the ABS provide information on the concept of earnings, not income. Employee income statistics are conceptually broader than earnings and are generally produced under the suite of social statistics.

**Earnings** include:

- wages and salaries in cash;
- regular bonuses; and
- salary sacrifice amounts - the value of goods and services obtained through salary sacrifice arrangements, where the employee chooses to forgo part of wages and salaries in cash in return for goods and services.

**Earnings** exclude (but are included in **Employee Income**):

- payments in kind - the value of non-cash goods or services provided to employees (fringe benefits);
- employers' contributions in respect of their employees paid to social security and pension schemes and also the benefits received by employees under these schemes (e.g. superannuation); and
- severance and termination pay.

**Employee Income** is an employee's total remuneration, whether in cash or in kind, received as a return to labour from an employer or from a person's own incorporated business. It includes:

- wages and salaries (in cash);
- bonuses (irregular, one-off);
- salary sacrificed amounts;
- non-cash benefits (including wages and salary in-kind) - free or subsidised goods and services from an employer such as the use of motor vehicles and subsidised housing; and
- severance and termination payments.

**Total Personal Income** is a broader concept which includes other monetary receipts such as government pensions and benefits, investment income, profit or loss from an unincorporated business, and private transfers (such as superannuation, child support etc).

## KEY SOURCES OF EARNINGS DATA

The ABS produces earnings statistics, as well as earnings related measures, from a range of sources. The major sources of earnings statistics in the ABS, and the publications in which they are released, are:

SOURCES OF EARNINGS DATA	
Survey of Employee Earnings and Hours (cat. no. 6306.0)	<ul style="list-style-type: none"> <li>• composition and distribution of earnings of employees, hours paid for, and whether their pay is set by award, collective agreement or individual arrangement.</li> </ul>
Survey of Average Weekly Earnings (cat. no. 6302.0)	<ul style="list-style-type: none"> <li>• the average weekly earnings of employees.</li> </ul>
Survey of Employee Earnings, Benefits and Trade Union Membership (cat. no. 6310.0)	<ul style="list-style-type: none"> <li>• information on weekly earnings of employees, their employment benefits and trade union membership.</li> </ul>
Wage Price Index, Australia (cat. no. 6345.0)	<ul style="list-style-type: none"> <li>• changes in the price of wages and salaries resulting from market pressures.</li> </ul>
Australian System of National Accounts (cat. no. 5204.0) and Australian National Accounts: National Income, Expenditure and Product (cat. no. 5206.0)	<ul style="list-style-type: none"> <li>• compensation of employees, a very broad concept of employee remuneration.</li> </ul>
Survey of Income and Housing (cat. no. 6523.0)	<ul style="list-style-type: none"> <li>• a breakdown of household income, including wages and salaries.</li> </ul>

Major Labour Costs Survey (cat. no. 6348.0)	<ul style="list-style-type: none"> <li>total earnings as well as other labour costs borne by businesses, for example payroll tax.</li> </ul>
Survey of Employment and Earnings (cat. no. 6248.0.55.002)	<ul style="list-style-type: none"> <li>public sector employee earnings paid by level of Government.</li> </ul>
Quarterly Business Indicators Survey (cat. no. 5676.0)	<ul style="list-style-type: none"> <li>private sector wages and salaries paid to employees, and other business costs e.g. investment.</li> </ul>
Wage and Salary Earner Statistics for Small Areas, Time Series, 2005-06 to 2010-11 (cat. no. 5673.0.55.003)	<ul style="list-style-type: none"> <li>regional estimates of wages and salaries based on postcode level aggregates of the Australian Tax Office's Individual Income Tax Return Database.</li> </ul>

Household and employer surveys which are used by the ABS to collect earnings statistics have different strengths and limitations. It is important to be aware of these differences when analysing the data.

STRENGTHS AND LIMITATIONS OF ABS EARNINGS DATA SOURCES	
Employer surveys earnings data	Household surveys earnings data
<p>Employer surveys provide:</p> <ul style="list-style-type: none"> <li>more accurately reported earnings as data are obtained from employers' payrolls;</li> <li>components of earnings collected separately (i.e. ordinary time and overtime earnings); and</li> <li>consistent business characteristics (such as industry and business size), as this information is maintained on the ABS Business Register.</li> </ul> <p>Limitations include:</p> <ul style="list-style-type: none"> <li>limited socio-demographic characteristics of employees;</li> <li>limited information about characteristics of employment; and</li> <li>only state/territory geographic information about place of work available.</li> </ul>	<p>Household surveys provide:</p> <ul style="list-style-type: none"> <li>earnings by socio-demographic characteristics;</li> <li>earnings by a range of employment characteristics, such as paid leave entitlements; and</li> <li>greater geographic information about place of usual residence including Statistical Area level 4 under the Australian Statistical Geography Standard.</li> </ul> <p>Limitations include:</p> <ul style="list-style-type: none"> <li>earnings are less robust, with reliance on respondents' accurate recall of (pre-tax) earnings;</li> <li>some respondents report on behalf of others in the household which can affect the quality of data reported;</li> <li>fewer and less robust information about business characteristics; and</li> <li>components of earnings estimates not available.</li> </ul>

The rest of this article focusses on three key ABS labour surveys providing estimates of earnings and explains the purpose and key outputs of each, as well as their benefits and limitations. The surveys are:

- the two-yearly EEH survey (cat. no. 6306.0);
- the six-monthly AWE survey (cat. no. 6302.0); and
- the annual EEBTUM survey (cat. no. 6310.0). The last issue of this publication is being released on 4 June 2014. In the future earnings data will be available in a new publication titled Characteristics of Employment, Australia (cat. no. 6333.0). The first release of this publication will be in respect of August 2014 and will be released in mid 2015.

In addition, the ABS WPI (cat. no. 6345.0), which provides a measure of changes in wages and salaries paid by employers for a unit of labour (i.e. hour) over time, is discussed as movements in WPI are often compared to AWE.

The first two surveys, EEH and AWE are employer surveys and measure earnings related to a 'point in time' (e.g. a pay period). They collect wages and salaries in cash that are received regularly and frequently (e.g. exclude one-off bonuses) and include payments for employees on paid leave.

EEBTUM is a household survey and also collects earnings at a 'point in time', the most recent pay period, i.e. the last total pay. It collects wages and salaries in cash, before tax or any other deductions. As the survey collects amounts of "total last pay", it may include irregular and infrequent payments or bonuses, and payments related to other periods.

### Survey of Employee Earnings and Hours

The two-yearly EEH provides statistics on the composition and distribution of employee earnings, the hours paid for, and the methods used to set their pay. From 2006, estimates of earnings from EEH have included amounts salary sacrificed.

The information in EEH is collected from businesses but at the individual employee level. This makes it possible to derive measures of distribution (e.g. medians, deciles, earnings ranges) and provide some information on individual characteristics of employees. The median is a better measure of 'central tendency' than the mean when distributions are uneven or skewed, as the mean can be heavily influenced by outliers in the distribution. This is discussed in more detail later.

EEH also provides some information on individual characteristics of employees. These include: managerial/non-managerial status; occupation; sex; full-time/part-time status; adult/junior status; type of employee (permanent, fixed-term contract or casual); method of setting pay (i.e. award only, collective agreement and individual arrangement); and hours paid for. From 2014 onwards age of employee will also be collected in EEH. The EEH survey therefore complements the AWE survey by providing detailed information on the composition and distribution of employee earnings and hours, however on a less frequent basis.

A key strength of EEH is that it allows for hourly measures of earnings to be derived (currently only for non-managerial employees). Hourly earnings measures are useful for comparisons between groups who may work different weekly hours.

Non-managerial adult hourly ordinary time earnings from EEH is a widely used measure, since it allows as much of a like-for-like comparison as possible, facilitating comparison of earnings for different population groups. For example directly comparing the weekly earnings of full-time and part-time employees would not take hours paid for into account.

## Survey of Average Weekly Earnings

The six-monthly AWE is currently the most frequently available source of the level of earnings. It is designed to provide estimates of the level of average earnings at a point in time, and while not designed for movements in earnings, the frequency of collection supports a time series of these level estimates. Data on the average level of earnings are useful for providing a level benchmark to compare a specific amount to an average level of earnings e.g. what an individual earns compared to the average.

AWE has the longest history of the three ABS earnings sources discussed in this article. Collecting average earnings data is relatively simple and can produce estimates in a timely manner. While not designed as an index of wages, it is extensively referenced in legislation for indexation purposes.

Data are obtained from selected businesses on the total earnings (ordinary time and overtime) paid to their employees and the total number of employees in the business, which together are used to derive the mean, or average, earnings. These sample data are then weighted to provide estimates for the whole population of in scope businesses. Estimates are available by state/territory, sex, industry and sector.

The three key earnings series (excluding amounts salary sacrificed) produced from AWE are:

- Average weekly ordinary time earnings (AWOTE) for full-time adult employees;
- Average weekly total earnings (AWTE) for full-time adult employees; and
- Average weekly total earnings for all employees.

The earnings series from AWE historically excluded amounts salary sacrificed. As discussed above, amounts salary sacrificed are conceptually part of wages and salaries in cash, however, the key earnings series from AWE have continued to be published on the old conceptual basis (i.e. exclusive of amounts salary sacrificed) to maintain long term comparability of the key series. Since the May 2011 AWE publication, the Average Weekly Cash Earnings (AWCE) series have also been released. These series are inclusive of salary sacrificed amounts. For more information see the Explanatory Notes of the AWE publication (cat. no. 6302.0) and Information paper: Changes to average weekly earnings, Australia (cat. no. 6302.0.55.002).

Out of the three series produced from AWE, the AWOTE for full-time adult employees series is generally considered the most stable earnings series due to the exclusion of overtime and part-time and junior employees, however it should be noted that the series does not represent all employees. AWTE for full-time employees has higher levels compared to AWOTE for full-time employees as it includes overtime. AWTE series for all employees has the lowest levels as it includes the earnings of part-time and junior employees, who receive lower pay on average than full-time adult employees.

Compositional changes in the employee population (e.g. the mix between full-time and part-time employees, or the industries and/or occupations in which they work) and the composition of the survey samples selected, can impact on the level of average earnings. For example, if there is an increase in part-time employment then, all other things being equal, the average weekly total earnings series for all employees would be expected to decrease.

## EEH and AWE - some definitions

**Employee** refers to all civilian wage and salary earners who received pay for any part of the reference period excluding:

- working proprietors and partners of unincorporated businesses;
- employees paid under the Australian Government's Paid Parental Leave Scheme;
- employees based outside Australia;
- persons paid by commission only; and
- non-salaried directors.

**Full-time employees** are permanent, temporary and casual employees who normally work the agreed or award hours for a full-time employee in their occupation and received pay for any part of the reference period. If agreed or award hours do not apply, employees are regarded as full-time if they ordinarily work 35 hours or more per week.

**Adult employees** are those employees 21 years of age or over, and employees under 21 years old who are paid at the full adult rate for their occupation. **Junior employees** are aged under 21 who are not paid at the adult rate of pay for their occupation. Junior employee earnings are included in the average weekly total earnings for all employees.

**Average weekly earnings** represent average gross (before tax) earnings of employees and do not relate to average award rates, or to the earnings of the 'average person'. Estimates of average weekly earnings are derived by dividing estimates of weekly total earnings by estimates of number of employees.

**Weekly ordinary time earnings** refers to one week's earnings of employees for the reference period attributable to award, standard or agreed hours of work. It is calculated before taxation and any other deductions (e.g. superannuation, board and lodging) have been made.

**Weekly overtime earnings** refers to one week's earnings of employees for the reference period relating to payment for hours in excess of award, standard or agreed hours of work.

**Weekly total earnings** refers to weekly ordinary time earnings plus weekly overtime earnings of employees.

Excluded from the **scope** of EEH and AWE are the following:

- members of the Australian permanent defence forces;
- employees of enterprises primarily involved in the Agriculture, forestry and fishing industry;
- employees of private households; and
- employees of overseas embassies, consulates, etc.

## Survey of Employee Earnings, Benefits and Trade Union Membership

EEBTUM is a household survey, conducted annually as a supplement to the monthly Labour Force Survey (LFS). This survey collects weekly earnings data together with a range of socio-demographic information collected from individual people, such as: sex; age; marital status; relationship in household; geographic region of usual residence; school attendance; country of birth; and year of arrival in Australia.

EEBTUM also collects details about the nature of employment, including: occupation; industry; hours worked (hours paid for, hours actually worked and hours usually worked); full-time/part-time status based on hours worked; sector; size of workplace; and leave entitlements. From 2007, EEBTUM has included amounts salary sacrificed in the estimates of earnings.

As EEBTUM is collected at the individual employee level, like the EEH survey, this means that measures of earnings distribution (e.g. medians, deciles, earnings ranges) are able to be produced.

### EEBTUM - some definitions

**Employees** refers to people who:

- work for a public or private employer; and
- receive remuneration in wages or a salary; or are paid a retainer fee by their employer and worked on a commission basis, or for tips, piece-rates or payment-in-kind; or
- operate their own incorporated enterprise with or without hiring employees.

Employees who work solely for payment-in-kind are excluded.

**Full-time employees** are those employees who usually work 35 hours or more a week (in all jobs) and others who, although usually working fewer than 35 hours a week, worked 35 hours or more during the reference week. **Full-time employees in main job** are those employees who are:

- Single job holders who usually work 35 hours or more a week, or usually work fewer than 35 hours but worked 35 hours or more during the reference week; or
- Multiple job holders who usually work 35 hours or more in their main job and those who, although usually working fewer than 35 hours in their main job, worked 35 hours or more during the reference week.

**Part-time employees** are those employees who usually work fewer than 35 hours a week (in all jobs) and either did so in during the reference week, or were not at work in the reference week. **Part-time employees in main job** are those employees who are:

- Single job holders who usually work fewer than 35 hours a week, and did so in the reference week; or
- Multiple job holders who usually worked fewer than 35 hours in their main job in the reference week, or were away from their main job but usually work fewer than 35 hours a week in their main job.

**Second job** is a job, other than main job, in which some hours were worked during the reference week.

**Weekly earnings** are amount of 'last total pay' (i.e. before tax, salary sacrifice and other deductions had been made) from wages and salaries for jobs (all and main) held in the week prior to interview. For persons paid other than weekly, earnings are converted to a weekly equivalent. No adjustment is made for any back payment of wage increases, prepayment of leave or bonuses, etc.

Excluded from the **scope** of EEBTUM are the following:

- members of the permanent defence forces;
- certain diplomatic personnel of overseas governments, customarily excluded from the Census and estimated population;
- overseas residents in Australia;
- members of non-Australian defence forces (and their dependants); and
- students at boarding schools, patients in hospitals, residents of homes (e.g. retirement homes, homes for people with disabilities), and inmates of prisons.

The three surveys discussed above have important differences in concepts, scope and methodology, which can result in different estimates of weekly earnings. Therefore, care should be taken when comparing estimates of earnings from these surveys. The main differences are described in the box below.

### Differences between AWE, EEH and EEBTUM

AWE and EEH are both employer surveys, however EEH provides more detailed information from a larger sample, but is less frequent than AWE. Additionally, the two collections differ in **sample design** and **survey methodologies**. As mentioned earlier, AWE collects information relating to the total gross earnings and the total number of employees of employer units selected in the survey. The average weekly earnings measures are derived by dividing estimates of total gross earnings by the estimated number of employees. EEH collects information about weekly earnings of a sample of employees within the selected employer units. For more information see Chapter 29. Survey of Average Weekly Earnings and Chapter 30. Survey of Employee Earnings and Hours in Labour Statistics: Concepts, Sources and Methods (cat. no. 6102.0.55.001).

EEBTUM is a household survey and so differs from employer surveys in **scope**, **sample design** and **survey methodologies**.

The employer surveys exclude employees in the industries of Agriculture, forestry and fishing; and Private households employing staff. EEBTUM includes all civilian employees usual resident in Australia except: students at boarding school; patients in hospitals; residents of homes; inmates of prisons; Aboriginal and Torres Strait Islander communities in very remote parts of Australia; and, those who worked solely for payment-in-kind in their main job.

EEBTUM collects information from respondents who are either interviewed personally, or another adult member of their household responds on their behalf. Where earnings are not known exactly, an estimate is reported. AWE collects information from employers who complete a questionnaire with details of the total gross earnings paid to employees and the total number of employees in the business. EEH collects information about weekly earnings of a sample of employees within the selected employer unit. The business surveys are completed with information from the employers' payroll.

Industry information is collected differently for the different surveys. For employer surveys, industry is generally assigned according to the information on the ABS Business Register. In the household survey, industry is assigned based on the respondent's description of the industry activity at the place where the person works.

### Wage Price Index

The WPI measures changes in wages and salaries paid by employers for a unit (i.e. hour) of labour where the quality and quantity of labour are held constant. It is widely used as a measure of wage and salary inflation in the economy.

While AWE provides estimates of the level of earnings at a point in time, the quarterly WPI is a more relevant indicator for changes in the rates of pay. For further information on the WPI, please refer to the Explanatory Notes of Wage Price Index, Australia (cat. no. 6345.0) and Wage Price Index: Concepts, Sources and Methods (cat. no. 6351.0.55.001).

Period-to-period movements for the AWE series are not necessarily comparable with those for the WPI. It is important to recognise that the two series have different purposes and concepts, and use different sample selection, rotation, and estimation methodologies.

The WPI measures change in the price employers pay for labour that arise from market factors. Specifically, the WPI measures change in the price of wages and salaries. As a price index the quantity and quality of labour services are held constant, changes in the composition of the labour force, hours worked, or changes in characteristics of employees (e.g. work performance) are all excluded from the index. For the WPI this is achieved by ensuring that identical jobs are priced from one period to the next. This is referred to as pricing to constant quality.

## USES OF EARNINGS DATA

Earnings statistics provide information on both the levels and movements in average earnings, and on the distribution of earnings for different groups of employees. Earnings statistics available from ABS sources provide key indicators to help inform policy, research and discussions of important labour market issues such as pay equity, social welfare, wage setting and income distribution. It is important to understand the relative strengths and limitations of the various earnings sources to ensure appropriate interpretation of the statistics.

As discussed above, there are a number of earning series available from ABS sources, and differences are observed when comparing these sources over time. Many factors contribute to the divergence in earnings, such as changes in wage rates, variations in hours worked, and changes in the composition of the employee work force.

The following sections provide a number of examples of the use of earnings statistics, namely: distributional and compositional analysis; gender comparisons; and wage movements.

### Distributional and Compositional Analysis

Distributional and compositional analysis can help answer questions such as:

- what is the distribution of earnings paid to employees, or a group of employees?
- is the distribution different for different groups of employees? and
- if so, what factors or characteristics of employees are driving those differences?

### Mean, Median and Frequency distribution - definitions

**Mean earnings:** The amount obtained by dividing the total earnings of a group by the number of employees in that group.

**Median earnings:** The amount of earnings which divides employees into two groups containing equal numbers of employees, one half with earnings below the median and the other half with earnings above the median.

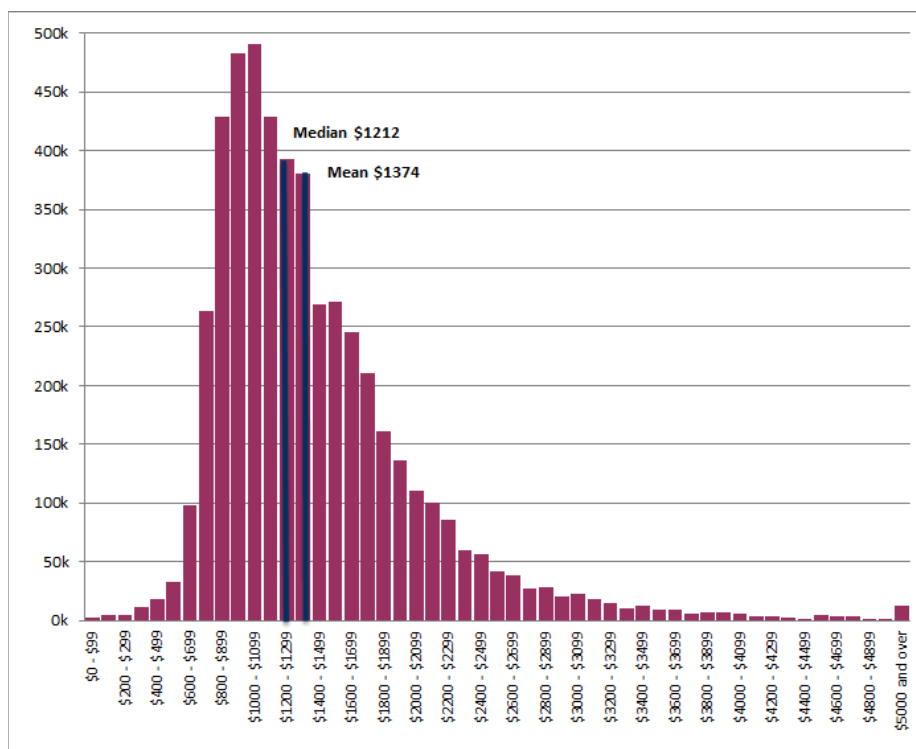
**Frequency distribution:** Frequency distribution of earnings show the spread of earnings within a population of interest, i.e. how much of the population have earnings at different levels, from very low to very high. This can show how earnings vary across a population.

It is useful to examine the distribution of earnings to determine whether most employees receive earnings near the average, or whether a few highly paid employees increase average earnings. When analysing earnings data, which has a skewed distribution with a long right-tail, the median is a better indicator of central tendency than the mean. However, to derive a median value, earnings for each employee in the survey are needed, i.e. the whole distribution. Both the EEH and EEBTUM collections provide distributional data as standard outputs.

Mean earnings are usually higher than the median as the mean earnings are influenced by outliers (graph 1). Relatively small numbers of highly paid employees contribute more to the numerator when deriving the mean, which results in a higher average. Generally, the larger the gap between the mean and the median for a group of employees, the more uneven is the distribution of earnings for that group of employees, indicating that a greater proportion of employees have earnings at the lower end of the distribution.

The graph below shows the distribution of non-managerial adult hourly ordinary time earnings from EEH, May 2012 survey. EEH data are more robust for analysing the distribution of earnings, as information is collected from businesses (from their payroll) but at an individual employee level. However, the EEH survey (used in graph 1) only has a limited number of characteristics of employees.

### Graph 1: TOTAL WEEKLY CASH EARNINGS, Adult full-time non-managerial employees: May 2012



Source: ABS data available on request, Survey of Employee Earnings and Hours, May 2012.

Weekly earnings are affected not only by changes in the rate of pay, but also by any changes in the composition of the Australian workforce, including:

- diversity of employment arrangements;
- number of hours worked;
- the extent of part-time and casual employment; and
- mix of industries and occupations.

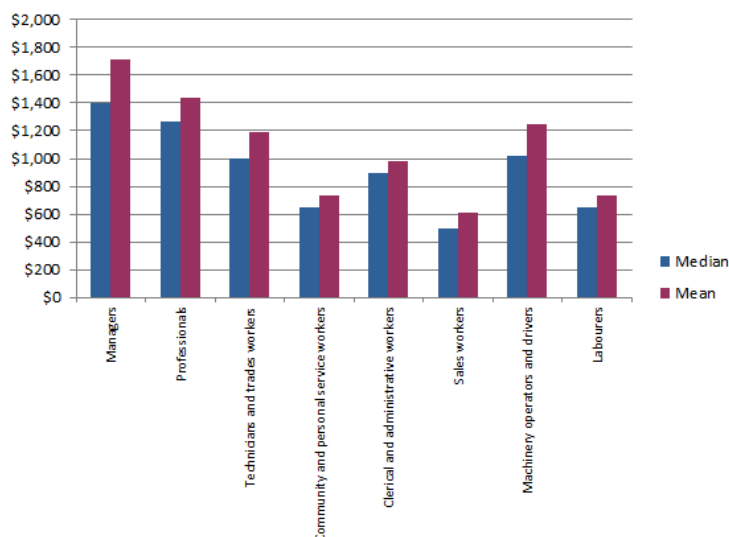
Many of these characteristics are not collected in employer surveys, however the household survey EEBTUM can provide insights into some of these through the availability of information about socio-demographic characteristics of employees.

EEBTUM data from August 2013 show there was a higher proportion of high earners in older age groups compared to younger age groups. The distribution of weekly earnings of employees in the age groups between 35 to 54 years were more skewed (i.e. wider gap between the mean and median), compared to those in the age groups between 15 to 24 or 25 to 34 years where the distribution is more equal (i.e. narrower gap between mean and median). The differences in the earnings distributions between younger and older groups can partly be explained by compositional differences between these two age groups.

A higher proportion of employees in the 35 to 44 and 45 to 54 year age groups work full-time in their main job. In August 2013, just over half (52%) of the employees in the 15 to 24 years age group worked full-time, whereas around three-quarters of employees in both the 35 to 44 and 45 to 54 year age groups worked full-time in their main job (73% and 72% respectively). A higher proportion of employees in the age group of 25 to 34 also work full-time (79%). This includes people who move to full-time work after completing their studies and, being a younger age group, tend to have less caring responsibilities (EEBTUM, August 2013).

The August 2013 data from EEBTUM also show that a far greater proportion of young employees were paid for few hours, 29% of employees (excluding OMIES) aged 15 to 24 years were paid for between 1 and 14 hours per week, compared with only 6% of employees (excluding OMIES) aged 25 to 54 years. This is a contributing factor towards the relatively lower weekly earnings in the 15 to 24 year age group. The middle age groups (those aged 35 to 44 and 45 to 54 years) have higher proportions of employees generally in higher skilled occupations, and are therefore higher paid. Over half of the employees in the Managers and Professionals major occupation groups are in the 35 to 54 years age group (54% and 57% respectively), resulting in higher median earnings for these age groups. Graph 2 below shows the mean and median earnings for the major occupation groups for August 2013.

**Graph 2: EMPLOYEES IN A MAIN JOB(a), mean and median weekly earnings by occupation: August 2013**



#### (a) Employees excluding OMIEs

Source: ABS data available on request, Survey of Employee Earnings, Benefits and Trade Union Membership, August 2013.

However caution should be exercised, as earnings estimates from EEBTUM are not as robust because they are reliant on respondents' (or another responsible adults') accurate recall of their (pre-tax) earnings. Also, measures provided from EEBTUM do not separate ordinary time earnings from overtime earnings.

#### Gender Comparisons

The earnings data collected by the ABS can to some extent support comparisons of earnings by gender. However careful consideration is needed, as many factors other than gender influence the observed differences in average earnings between males and females. These factors include labour market participation, hours worked, industry and occupation. Therefore the observed differences in earnings are generally a reflection of the differences in male and female working arrangements.

It may be necessary to analyse other data sources to get a more comprehensive picture of the composition of the workforce. The LFS provides more timely and robust information about the composition of the labour force, as the data are collected every month and from a larger sample of households. Therefore latest available data from the LFS has been used for analysis of compositional differences within the employed population in this section.

Generally, when looking at ABS statistics for average earnings, male employees earn higher weekly cash earnings than female employees. Much of the difference between earnings of different groups can be explained by a variety of factors including the variation of hours worked and the types of work done, e.g. different occupations or prevalence of part-time work. For example, LFS data shows that in April 2014, 83% of male employees worked full-time, while 54% of female employees were employed full-time. Females employed full-time usually worked fewer hours per week on average (40.8 hours) than males (44.6 hours), whereas females employed part-time usually worked 19.2 hours per week on average compared to males who usually worked 18.5 hours per week on average.

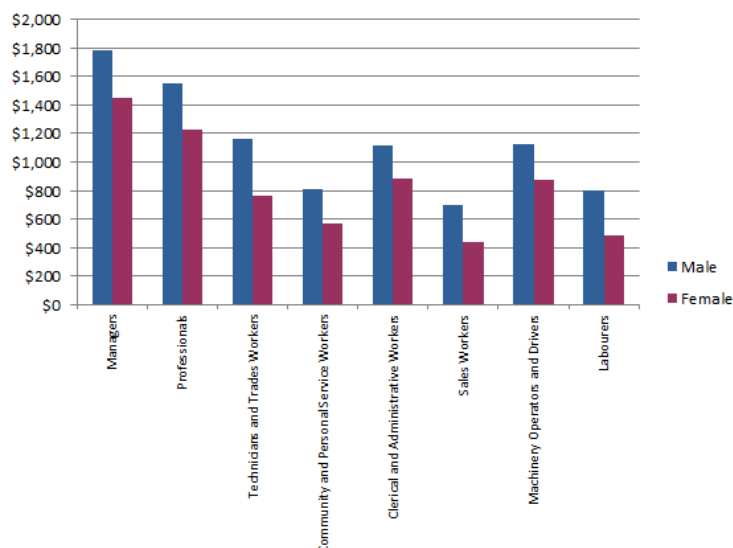
The distribution of weekly earnings are heavily influenced by the proportion of people employed part-time. For example, data from the February 2014 LFS shows that the major occupation groups Sales Workers, and Community and Personal Service Workers, had the majority of people employed part-time (56% and 51% respectively). These two major occupation groups also have a relatively high proportion of females. More than half (61%) of all Sales Workers were females, and 66% of those females worked part-time. Females also counted for the majority of Community and Personal Service Workers (68%), and of those females, 58% worked part-time. The earnings data from EEH, May 2012, shows that these two groups also had the lowest median weekly total cash earnings of all occupation groups, \$504 and \$636 respectively.

The occupation groups Professionals and Managers have higher proportions of people employed full-time and the highest median weekly earnings. Professionals had 89% of males and 66% of females employed full-time, and Managers had 93% of males and 76% of females employed full-time (LFS, February 2014). The median weekly total cash earnings for Professionals was \$1353 and for Managers it was \$1642 (EEH, May 2012).

LFS data from February 2014 shows that the vast majority of people employed as Machinery Operators and Drivers and Technicians and Trade Workers were male (92% and 86% respectively), and of these relatively few were employed part-time (14% of male Machinery Operators and Drivers and 9% of male Technicians and Trade Workers). These two occupation groups also had above average median weekly total cash earnings (\$1098 and \$1080 respectively) (EEH, May 2012).

#### Graph 3: MEDIAN WEEKLY TOTAL CASH EARNINGS FOR ALL EMPLOYEES, By occupation and by sex: May 2012



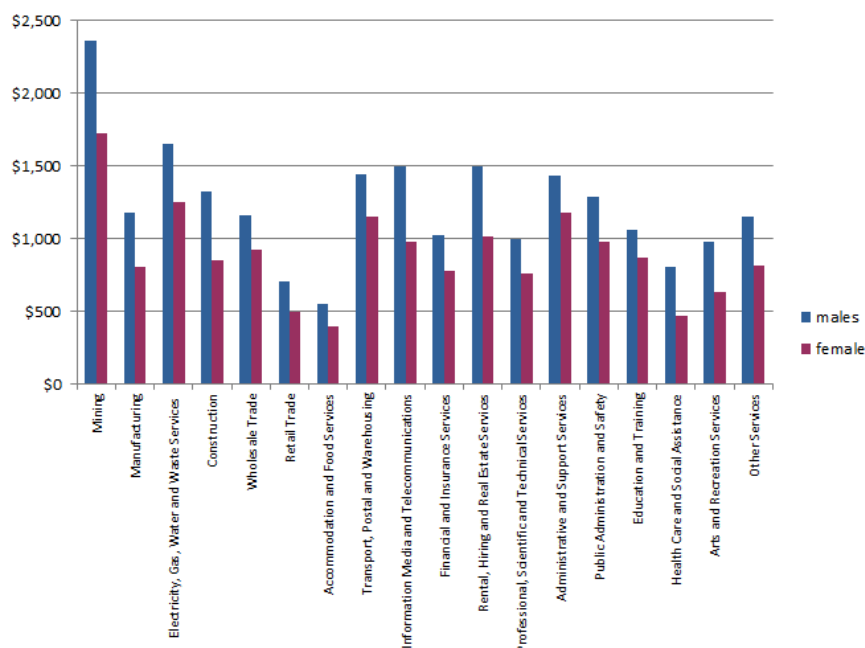


Source: ABS data available on request, Survey of Employee Earnings and Hours, May 2012.

The Accommodation and food services and Retail trade industries had the lowest levels of median weekly total cash earnings in May 2012 (EEH) (\$455 and \$590 respectively). LFS data from February 2014 shows that these two industries also have relatively high proportions of females (56% and 54% respectively) and a relatively high proportion of part-time employment. Retail trade had 48% of its workforce employed part-time, with 58% of females in this industry working part-time. Accommodation and food services had 57% of its employees working part-time with 62% of females in this industry working part-time.

The industry with the highest median earnings was Mining (\$2250 - EEH, May 2012), where 84% of the workforce were males working full-time (LFS, February 2014).

**Graph 4: MEDIAN WEEKLY TOTAL CASH EARNINGS FOR ALL EMPLOYEES, By industry and by sex: May 2012**



Source: ABS data available on request, Survey of Employee Earnings and Hours, May 2012.

As described above, differences in earnings between males and females could be due to many factors, including different jobs within different occupations or industries, differences in full-time and part-time work, and also hours worked. Therefore as many factors as possible should be considered when analysing data.

### Wage Movement Analysis

A key element in monitoring labour market and economic performance over time is examining changes in earnings. As earnings paid to employees represent a significant component of operating costs for businesses, changes in wages can highlight inflationary pressures facing businesses and/or impact on productivity. Changes in average earnings can also reflect the impact of the economic cycle on the labour market, or sectors within the labour market.

Up until recent times, WPI and AWE were both compiled on a quarterly basis, although AWE has recently changed to a biannual frequency with May 2012 being the last issue produced on a quarterly basis. Both WPI and AWE continue to be released in respect of May and November reference periods, and the common reference periods often lead to comparisons between the two series. Caution should be exercised when making such comparisons as differences in the purpose and design of the two collections means they will often respond differently to economic events.

Specifically, the WPI's focus on holding quality and quantity constant (to produce a measure of change in the price of a unit of labour) means

it is affected solely by broad labour market influences on rates of pay. AWE will be affected by a more comprehensive set of economic factors. These include: changes in wages and salaries associated with individual performance; changes in employment that can affect the distribution of various types of employees between two periods (e.g. full-time vs part-time; higher paid vs lower paid) or changes in the pattern of hours worked (e.g. increase in total hours worked, increase in overtime hours). All these changes can influence changes in earnings between two periods to different degrees, and can result in different movements being observed for WPI and AWE. It is recommended that WPI be used to measure the change in the price of labour, or changes in wages over time, for the reasons described above.

## CONCLUDING NOTE

Many factors contribute to the level and changes in earnings. These factors can be difficult to analyse independently, as most are inherent in the changes in employment patterns and composition, wage rates, hours worked and technological changes. Data gathered at the individual level, such as from the EEH and EEBTUM surveys, allow for compositional and distributional analysis, which makes it easier to try and account for the differences in employment patterns. The more factors which are taken into consideration when analysing data in general, the more robust such an analysis will be.

The various ABS sources of earnings information provide a wide range of data for a variety of purposes. Estimates from a given source may differ from estimates from other sources resulting from differences in scope, coverage and methodology. The decision on which data to draw on depends on the purpose and type of analysis to be undertaken.

The ABS encourages users to consider relevant factors in order to facilitate the most informed decision making.

More information on sources of earnings data, including conceptual or methodological differences, can be found in the Explanatory Notes of each publication, and in Labour Statistics: Concepts, Sources and Methods (cat. no. 6102.0.55.001).

For further information contact the Labour Market Statistics Section in Canberra on (02) 6252 7206 or email <labour.statistics@abs.gov.au>.

## APPENDIX 1

This appendix provides a summary of the ABS data sources or publications about earnings and earnings-related data.

	AWE	EEH	EEBTUM	WPI	National Accounts	Survey of Income and Housing	Survey of Major Labour Costs	Survey of Employment and Earnings	Quarterly Business Indicators Survey
Designed to measure	The level of average weekly earnings.	Weekly and hourly earnings and the distribution of earnings.	Earnings and the distribution of earnings.	Change in the price of labour.	Compensation of employees.	Total household income (including employment related income).	Labour costs for employers, including employee earnings.	Public sector employee jobs, and earnings.	Revenue, profits, inventory and wages paid by <i>private sector</i> businesses.
Frequency/Type of data source	Biannual business survey.	Biennial business survey with payroll employee component.	Annual household survey.	Quarterly business survey.	Quarterly compilation based primarily on quarterly business surveys.	Two-yearly household survey.	Irregular (currently run every 6 years) business survey.	Annual business survey.	Quarterly business survey.
Benefits	Time series data available (including seasonally adjusted and trend estimates).	Data cross-classified by employer and some employee characteristics. Distributional data available.	Detailed socio-demographic information. Distributional data available.	Estimate of pure wage inflation removing the effect of composition.	Broad measure of remuneration (includes, for example, annual bonuses and payment in kind).	Distributional data on the broader context of household income and components available (including labour income) cross-classified by several employee characteristics.	Earnings data in the broader context of labour costs. Data per employee also available.	Public sector estimates, by level of government.	Time series data available.
Primary publication	Average Weekly Earnings, Australia (cat. no. 6302.0).	Employee Earnings and Hours, Australia (cat. no. 6306.0).	Employee Earnings, Benefits and Trade Union Membership, Australia (cat. no. 6310.0).	Wage Price Index, Australia (cat. no. 6345.0).	Australian National Accounts: National Income, Expenditure and Product (cat. no. 5206.0).	Household Income and Income Distribution, Australia (cat. no. 6523.0).	Labour Costs, Australia (cat. no. 6348.0).	Employment and Earnings, Public Sector, Australia (cat. no. 6248.0.55.002).	Business Indicators, Australia (cat. no. 5676.0).

# Explanatory Notes

## Data Cubes (I-Note) - Data Cubes

Tables 1 - 3 were updated in the July 2014 issue of Australian Labour Market Statistics (cat. no. 6105.0).